A 4433

1923.

City and County of Bristol.

PORT OF BRISTOL.

ANNUAL REPORT

OF THE

Medical Officer of Health

INCLUDING

Report of Port Medical Officers of Health.

Printed by order of the Health Committee.

BRISTOL:
Lavars and Co., Ltd., Printers. Broad Street,

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CITY OF BRISTOL.

ANNUAL REPORT, 1923.

My Lord Mayor and Gentlemen,

The most encouraging feature of the year 1923 has been the success attending the work of the trained nurses employed either in the Infant Welfare and Maternity Department, or in the work of home-enquiry into the causation of disease which is now entrusted to three "Home Nurses." It is day by day becoming more evident that the most fruitful results of Public Health endeavour are to be gained by carrying instruction into the homes, and this can best be entrusted to trained Nurses. The success in this respect calls attention to a useful and modest Society which for a long series of years has been doing almost precisely similar work in the actual homes, in regard to ordinary non-communicable sickness. The Bristol and Clifton District Nurses' Society has for many years met the difficulty of providing help in the home for sick cases, and on every side, from my own Nurses, from the Clergy, from everyone in a position to know, their work is praised and welcomed. In the present day there are so many, too many, societies constantly being formed with the best intentions to fill this or that communal need, that a modest Society like this, which steadily persists in affording indispensable services without loudly sounding its own trumpet, is apt to escape due recognition. It is sad reading, which many of us deplore, that already one of the Districts has had to be deprived of the services of a nurse owing to financial reasons. The Patrons of the Society include the Right Hon. the Lord Mayor of Bristol, the High Sheriff of Bristol, and the Venerable the Archdeacon of Bristol, and its continuance in full power without the hampering shadow of lack of funds is so essential to the maintenance of Health conditions in the city (which means far more than mere attention to communicable disease) that I am convinced it would be well to include, if possible, its activities amongst those which, with no greater reason, claim Municipal support.

The Table of Staff introduced into this Report shows the immense increase, especially marked since the war, in the medical, nursing and clerical staff of the Department to cope with the *new* work which has been imposed on the Health Committee by the Legislature. If this were merely for carrying out the same work which previously fell to this Committee it would be open to the critic to wonder why the work which was admittedly satisfactory, say in 1906, cannot be done now at less than about double the cost ! As a matter of fact the increased staff and the accompanying increased cost is practically due entirely* to new compulsory Acts, increasing the work and responsibility of the Health Committee and of the administrative Officers more than two-fold. The older work has indeed been somewhat blanketted by the development, under Government pressure, of this new and subsidised work, and thus there is the fullest justification for the approval given by the Council for administrative Medical assistance.

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* No increase in medical staff for original duties since 1886. Increase in population in same period 163,000.

The third point of considerable importance to the welfare of the City is the question of completing the provision of beds at Frenchay Park Sanatorium, authorised by the Council in 1921 for the treatment of the early manifestations of tuberculosis in children, and at present in abeyance owing to the limitation of Treasury grants.

The recent Circular of 8th February, 1924 (474 England), issued by the Ministry raises some hopes that this essential part of tuberculosis work may be advanced in the near future.

I am, my Lord Mayor and Gentlemen,
Your obedient Servant,

D. S. DAVIES, M.D., LL.D., D.P.H., etc.,

Medical Officer of Health, City and County and Port of Bristol; Administrative Med. Supt. City Hospitals; Lecturer in Charge of Public Health, University of Bristol, and Internal Examiner to the University; sometime Examiner to the Universities of London, Cardiff and Belfast, and to the Conjoint Board; late Medical Inspector to H.M. Loc. Govt. Bd. on Cholera Survey and General Sanitary Survey of England; Surgeon-Col. 1st Glos. R.G.A. (V.), retd. V.D. Lt.-Col. R.A.M.C. (T.), retd., etc.

CITY OF BRISTOL.

HEALTH DEPARTMENT.

Retrospect for 1923.

Births.

During the year 1923, 7,457 births were registered, corresponding to an annual rate of 19.33 per 1,000 population, compared with a rate for 1922 of 19.92, for 1921 of 22.03, for 1920, of 25.6, and for 1919, of 18.4. The Birth Rates as corrected by the Registrar General are—for 1923, 19.5; for 1922, 20.1; for 1921, 22.3; and for 1920, 25.7. (The rate would be better calculated, not on population, but as a rate per 1,000 women living at child-bearing ages (15—45).

The birth-rate, which for the decade 1880-89, was 31.4, steadily delined year by year to a minimum in 1918 of 16.1. A similar decline during the last 40 years has been noted in most civilised countries.

The causes of decline in the birth-rate are chiefly four:—

(1) Deliberate birth control.
(2) Postponement of age of marriage.
(3) Increasing celibacy due to cost of living and employment difficulty.
(4) Absence of men from country on war service.

The social bearings of high and low birth-rates and infant mortality rates may be summarised thus :—

(1) A high birth-rate with many surviving children will in time cause industrial overcrowding.
(2) A high birth-rate with high infant mortality rate is simply deplorable.
(3) A low birth-rate with few survivors is equally undesirable.
(4) A low rate with many survivors may possibly mean the solution of many social difficulties.

A vast population, more than a country can support, needs Colonial outlet, or means starvation, and this condition in Germany may have been one direct cause of the War. Colonies need sea-control and command of the Channel Ports. On the other hand, the development of a country may be delayed owing to lowness of birth-rate. A happy mean is desirable.*

Infant Mortality.

The Infant Mortality Rate per 1,000 births for 1923, was 62.49, compared with a rate for 1922 of 74.1, for 1921 of 67.8, and for 1920 of 70.4. The Infantile Mortality Rates, as corrected by the Registrar-General for transferable deaths from or to outside districts are—for 1923, 69 ; for 1922, 71 ; for 1921, 66 ; and for 1920, 69. The rate for the decade 1890-99 was 147-5, with a birth-rate of 29.0, and the infant mortality rate did not show notable decline until 1907, when it fell to 100.9. In 1910, the rate was 90.3, but again rose in 1911 (a remarkably warm summer) to 142.8. Since 1915 it has only exceeded 100 in one year, 1917, when it was 102.0. The early summer of 1921, when the infant mortality was at its lowest, was remarkable for its warmth and continuous drought, but this was not continued through the later summer months.

One chief factor in infant mortality is the infant diarrhoeal mortality accompanying continued high temperatures in the late summer and autumn.

Death Rate.

The recorded Death Rate for 1923 (uncorrected for age and sex distribution) is 11.72, calculated on a population of 385,600, estimated to mid-year, 1923, compared with 13.2 in 1922, 11.4 in 1921, 12.6 in 1920, 13.1 in 1919, and 17.2 in 1918 (Influenza year).

The adjusted Death Rates as given by the Registrar-General,, for 1923 is 11.2, for 1922 is 12.8, for 1921 is 11.1, for 1920 is 11.7, for 1919 is 13.4, and for 1918 is 17.1.

When we find that, at the date of Clark's Report, 1850, the average general death rate over a period of 7 years was 27, in the 'seventies averaged about 21, in the 'eighties from 16 to 19, and has fallen steadily to the present time, there would seem to be reason for congratulation. So there is, and the gradual and continuous improvements form an index no doubt of the social betterment in domestic conditions, of the influence of the "New Humanity" continued from the eighteenth century and fostered by Lord Shaftesbury and others, in regard especially to conditions of employment, of the provision of the prime necessaries for decent communal existence, unpolluted water and efficient removal of waste matters, supplemented by supervision of things possibly harmful, and, more important, by some supervision of persons, and aided by some rudimentary development of a "Sanitary conscience" in the individual.

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* Hewlett & Nankivell -Principles of Preventive Medicine, 1912.

Under these influences general morbidity and mortality would be likely to decline from general diseases, as well as from that small group of intestinal communicable diseases exemplified by Cholera and Typhoid, which are directly amenable to "sanitary" influence as generally understood. "Sanitary" endeavour alone has probably done all that it can towards control of disease, it must be maintained, but other more direct means founded on knowledge of the etiology of individual diseases are necessary.

The most fatal of the communicable diseases are shown in these figures for the ten years, 1904-1913 and 1914-1923, none of which bear any direct relation to insanitary conditions :—

	1904-1913 *Deaths.*	1914-1923 *Deaths.*
Measles	1,034	726
Whooping Cough ...	884	570
Diphtheria ...	600	503
Scarlet Fever ...	196	114
Smallpox	13	8
	2,727	1,921

which averages 272 a year for the first period 1904-1913 and 192 for the period 1914-1923, ~~363 in the period 1904-1913, and 383 in the period 1914-1923.~~

The efficient safeguards are Hospital accommodation, an adequate medical staff for enquiry into home, school or institution infectious sickness before the development of an epidemic, and time and opportunity for continuous pathological investigation and research, none of which are fully available.

COMPARATIVE RATES.

	Death Rates					Infant Mortality Rate				
	1919	1920	1921	1922	1923	1919	1920	1921	1922	1923
Birmingham	13.6	12.6	11.2	11.9	10.7	88	83	82	85	71
Liverpool	16.8	15.7	14.3	14.5	13.5	107	111	105	94	98
Manchester	14.0	13.0	13.6	14.0	13.1	95	94	94	94	85
Sheffield	13.7	13.2	12.5	11.6	11.3	96	104	98	81	89
Leeds	16.0	14.3	13.5	13.7	12.6	112	105	96	97	85
Bristol	13.1	11.7	11.0	12.8	11.2	82	69	66	71	61

(*Registrar General*).

BRISTOL HEALTH DEPARTMENT.

STAFF.

1912.		1924.	
CITY.		CITY.	
Medical Staff.		*Medical Staff.*	
Medical Officer of Health	1	Medical Officer of Health...	1
Ham Green	1	Ham Green	3
		Frenchay Park (Tuberculosis Officer visiting M.O.—Part-time)	
Novers Hill (Visiting) ...	1	Novers Hill (Visiting) ...	1
		Tuberculosis Dispensaries	2
		M. & C.W. (Part-time) ...	1
		Ante-Natal Clinics and Infant Clinic (Part-time)...	3
	3		11
Clerks	8	Clerks	26
		,, Housing ...	3
			29
Inspectors	20	Inspectors	22
		,, Housing ...	4
			26
Health Visitors... ...	2	Health Visitors	26
		Home Nurses	3
			29
		Tuberculosis Nurses ...	6
Total	33	*Total*	101
PORT.		PORT.	
Port Medical Officer ...	1	Port Medical Officer ...	1
Asst. Port Med. Officers ...	3	Asst. Port Med. Officers ...	3
	4		4
Inspectors	4	Inspectors	4
" Luath " (sold May, 1912) Hospital Ship ...	2		

The greatly increased Staff all come under the administrative supervision of one unassisted Medical Officer of Health.

Practically the whole of the added staff is in respect of newly imposed work, the original work involved when the M.O.H. undertook duty is still done with no appreciable increase of staff, though the City has increased by the population of Southampton.

March, 1924.

HOME NURSES AND THEIR WORK.

When the appointment of Home Nurses was first authorised under the Maternity and Child Welfare Act, 1918 (*vide* paras. 19, 22, Circular M. & C.W. 4), the Health Committee appointed three for these special duties in February, 1919.

Home Nurses for infectious diseases may be appointed under the Amendment Act of 1907, under the special Regulations for Influenza, Pneumonia, Malaria, Dysentery, etc., or specifically, as was done in this case, under the provisions of the Maternity and Child Welfare Act, 1918, in which case a grant is available for the nursing of puerperal fever, and the nursing of measles, whooping cough, polio-myelitis, and epidemic diarrhœa in young children (par. 19), and the Circular further urges in par. 21 : " It is particularly important that all cases of measles notified from districts in which deaths from the disease are likely to occur, should be visited."

A Local Authority may, with consent of the Ministry, themselves appoint Nurses for the purpose specified, as has been done in Bristol (par. 21). The expression " young children " in these Acts appears to connote children under five years of age.

Home Nurses now visit all notified infectious diseases cases and also all non-notifiable infectious cases reported from the Public Elementary Schools.

This materially relieves the work of the District Sanitary Inspectors, to whom the work of enquiry in disease was formerly entrusted.

The total number of Notifiable and Non-Notifiable Infectious Diseases visited by Home Nurses during the year 1923 was :

Scarlet Fever	1,443
Diphtheria	736
Erysipelas	141
Enteric Fever	29
Cerebro-Spinal Fever	4
Malaria	8
Dysentery	14
Encephalitis Lethargica	24
Polio Encephalitis	—
Anterior Poliomyelitis	11
Whooping Cough	763
Chicken Pox	1,351
Measles	2,286
Mumps	619
German Measles	17
Total Cases	7,446

This total shows only primary visits, and does not include visits paid to see that isolation of patients was being carried out, or for the supervision and treatment of contacts.

NOTE.—Each case of Infectious Disease when notified is visited by the Home Nurse for the purpose of investigation as to the source of origin, etc., and to obtain the necessary particulars relating to the patient and family, etc. for the information of the Medical Officer of Health.

In cases of Diphtheria, Encephalitis Lethargica, Cerebro-Spinal Fever, Polio Encephalitis and Anterior Poliomyelitis, home contacts are placed under supervision and spray treatment by the Home Nurse, which necessitates several visits to the home.

When a " First Case " of Measles is notified from certain Infant Departments of the Council Schools, the whole of the Class contacts are excluded from attendance at school from the ninth to the fifteenth day after onset of " First Case," and placed under the supervision of the Home Nurse, who is responsible for watching and reporting any illness among the contacts during the period of exclusion.

Many abortive visits are paid to cases of Infectious Disease due to the fact that no responsible person happens to be at home at time of visit to furnish the Home Nurse with reliable particulars, this happening entails the necessity for revisiting until the information required is obtained.

In cases of Enteric Fever three subsequent visits are paid at weekly intervals to ascertain condition of contacts

HOME NURSES.

The value of Home Nurses in giving advice in regard to disease in the home is emphasised by Sir George Newman, Chief Medical Officer of the Ministry in his Report for 1922. Dealing especially with the case of Measles, he goes so far as to recommend that when this disease is widespread, the whole force of Health Visitors should be diverted to the duties of Home Nurses, and for the time their infant welfare functions are to be in abeyance. This plan would inevitably lead to difficulties, as the Infant Welfare Department naturally take pride in their special work, and such a practice if often repeated would seriously disorganise it. A better way would be to encourage the general adoption of the plan of replacing the enquiries into the ordinary children's diseases commonly carried out by the male Sanitary Inspectors, by enquiries and advice tendered by Home Nurses. In Bristol, we have already made a start in this direction, and the three Home Nurses provided for this work have more than justified the change. But, in order to make this system popular, some encouragement by way of Grant should encourage this forward step. Infant Welfare Health Visitors are not available for children over five, and Home Nurses dealing with children of maturer ages receive no grant in aid and are therefore difficult to obtain.

Later on, in dealing with the question of Measles, the Chief Medical Officer points out that the practical advice of the Health Visitor or Nurse (Home Nurse) exemplified in a particular case in the home, will educate the parent and spread practical working knowledge more satisfactorily than any other method.

In yet another paragraph the Chief Medical Officer presses home the importance of Home Nurses.—"**Nursing Provision.** This is of the first importance in preventing mortality and disablement resulting from Measles. The services of nurses are not perpetually required (for measles nursing), but it is essential that sanitary authorities should have a call on the services of nurses for home nursing whenever the need for utilising them arises."

It is gratifying to find such authoritative and definite approval accorded to the principle which your Committee has already adopted in securing a similar advantage for children in the case of Scarlet Fever and Diphtheria. The system is undoubtedly correct, and should be extended as a real advance in public health work.

CHILD WELFARE.

Dr. C. R. Gibson, in considering, in a recent issue of *Public Health,* the prime factors in the decline of Infant Mortality, reaches the following conclusions, with which, in the main, I agree :—

1. That mortality in infants (excluding diarrhœal mortality) since 1870 has been roughly parallel to mortality at middle age.
2. That the common variations of the two rates, including the large decline since 1900 or 1890, are largely explicable by changes in national prosperity, in habits of alcohol consumption, and in climatic conditions (especially winter temperature).
3. That the variations in diarrhœal infant mortality are similarly accounted for by changes in national habits and in summer temperature.
4. Over and above these influences the Child Welfare movement may have contributed to the decline in infant mortality since 1911, and may be responsible for, at most, one half the decline since then in non-diarrhœal mortality, and a lessening by one half of the diarrhœal death rate in epidemic years.
5. That the effect of alcohol on infant health is suggested by the statistics of other nations, and by inter-local and inter-class comparisons in this country.
6. That, from 1917 onwards, apart from the influenza years 1918 and 1919, and notwithstanding the otherwise continuous decline in infant mortality, the harmful effect on infant health of the national dislocation caused by the war is perceptible in the mortality rate.

Hospital Accommodation.

The deficiency in Hospital accommodation, and its failure to increase commensurately with the increase in population, has been noted for some years, and in 1914 suitable extensions were authorised by the City Council and approved by the Local Government Board, but were deferred owing to the War. In the meantime, expenditure in relation to Tuberculosis, Infant Welfare and Venereal Disease has risen so enormously that progress in other directions is checked, and at the same time a campaign has been started decrying the value of Isolation Hospitals. Many of the criticisms err in dealing with communicable diseases as a whole, whereas they differ one from another so materially in causation and methods of spread, that the relative value of Hospital Isolation varies for each form of disease. For example, there can be no question that isolation is imperative for preventing spread of Smallpox, while in Diphtheria, this end, though also served, is perhaps secondary to the advantage in life saving of specialised medical service and of necessary operative relief immediately at hand. Scarlet Fever has proved disappointing to the ingenuous aspirations of the 'seventies, but isolation in this disease, as in Measles coming from overcrowded houses, means not only saving of life but avoidance of the evolution of septic types of disease. Isolation Hospitals are erected out of the rates, not to save trouble to householders who have means of isolation at hand, but to protect the public by isolation where this is impossible owing to home conditions. It is the judicious use of a reasonable amount of hospital room, rather than the indiscriminate use of a superabundance of beds, that is of public health value.

The position in regard to Hospital accommodation which, in place of the approved 1 bed per 1,000, does not afford more than 240 beds in all for a population of 385,600 people, has been emphasised on several occasions during the present century, and has caused considerable anxiety and grave difficulty in 1902-3-4, during a concurrent outbreak of Scarlet Fever and Measles, in 1913 with Scarlet Fever, and again during 1921 and 1922, when, in the absence of Clift House as a reserve, the Sanatorium Blocks have had to be pressed into service. Some projected hospital extensions were approved by the Council in 1914, when the war intervened. Since the war urgent Government intervention on behalf of Sanatorium Benefit, Infant Welfare Work and Venereal Disease control has held the field, absorbed the expenditure, and shouldered aside the basic necessity for hospital accommodation and control of communicable fevers.

Bearing these facts in mind, the Council on 8th April, 1924, approved the Health Committee's Report to provide 56 additional beds at Ham Green Hospital.

TERMINAL DISINFECTION.

The Chief Medical Officer of the Ministry in his latest Report for 1922 asks whether the routine practice of disinfection adopted by most sanitary authorities in connection with notified cases of scarlet fever is really called for, and whether house and clothes disinfection on an extensive scale may not safely be restricted to exceptional cases. In many towns in America terminal disinfection after Diphtheria has been given up as unnecessary since 1905, and in Scarlet Fever since 1908. The explanation is that, as Dr. J. C. Heaven insisted in regard to Diphtheria so long ago as 1894, Diphtheria is a disease of person, not of place, and the human patient, or the missed mild case, or the unwitting " carrier " is far oftener the source of infection in any communicable fever than are external inanimate objects or fomites. Terminal disinfection is one of the fetishes accompanying the discredited " filth " theory of disease, and *Chapin advises that it be given up and the money be used for Nurses for Home-visiting.

But if terminal disinfection is to be abolished, it must be understood that continuous attention to proper nursing, including any necessary disinfection has been exercised throughout, which means, in home-nursed cases, the advice and supervision of our Home Nurse. To secure this the system will have to be considerably developed. Meanwhile, Sir George Newman promises a further consideration of the subject.

THE POSITION OF GENERAL SANITARY WORK UNDER MODERN CONDITIONS.

Dr. Charles V. Chapin,† Superintendent of Health, Providence R.I., in an address to the American Public Health Association, doubts whether the undue importance ascribed by the Public to " Nuisance Prevention " is not indeed a hindrance to work really valuable in the prevention of disease, such as is secured by visits of trained nurses (who will secure concurrent disinfection in place of relying upon terminal disinfection), in laboratory work, epidemiological enquiries and " contact "-following. In his opinion 50 public health nurses are needed for every 100,000 people, and these would largely replace the Sanitary Inspector. He points out that while certain nuisances have a direct " Health " bearing, many other nuisances, even if connected with defective plumbing and drains often have no direct bearing on health. He then asks whether nuisance prevention prevents enough sickness to warrant the efforts and money expended, and declares that according to present day knowledge it does not. " Tin cans do not breed disease. A dead cat in the street will not cause diphtheria. Even a burning dump will not affect health. An untrapped sink in the open will do no harm. Garbage in the ash-heap never results in typhoid fever. To whitewash the cellar will not prolong life. An uncovered cesspool is a cause of death only by drowning. Bad odours are practically harmless."

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* "The Medical Officer," 17th November, 1923.

† Cf "The Medical Officer," Saturday, 9th February, 1924, p. 55.

Dr. Chapin considers that so much time is spent in nuisance work because we are bound by tradition, and the old-fashioned filth theory of disease still holds sway, the lay press has learned very little about the new public health, but politicians have learned nothing, and still cling to such maxims as " the dirt rate of a City determines its death rate."

" I know and you know," says Dr. Chapin, " that this is not so," and he has had the courage in his district of 250,000 people to cut down the Sanitary Inspectors to one man, because such work as offensive trades are best dealt with by the engineering department, and general inspection of rubbish collections and obvious offences requiring no expert knowledge, by the Police. For eighteen months Dr. Chapin records he has had no death from typhoid fever, and the death rate from summer diarrhœa in 30 years fell 72 per cent.

He concludes : " It will doubtless be said that there is some truth in all this but the idea is pushed too far. It will be claimed that general municipal cleanliness promotes personal cleanliness. This may to some extent be true, but people put the fingers to the mouth and forget to wash the hands almost as much where there is a fine lawn as where there is a heap of rubbish in the yard . . . It is certainly true that protection of the water supply, extension of sewers, abolition of privies, and in certain cases the control of rats and mosquitoes, constitute nuisance work which is worth while. It is not such really effective nuisance work to which I so strenuously object as a public health function, though there are those who think that much of this work might better be done by the engineering Department, but it is the abatement of that class of every-day nuisances which have no relation to public health, but which the majority of the public consider to be part of our duty, but the control of which, leading to greater amenity rather than to better health, ought to be transferred to some other Department."

Dr. Chapin is nothing if not stimulating, and while, in England, we may not be prepared to go all the way with him, it is undoubtedly true that far too great importance is ascribed to the mere dealing with nuisances to the comparative neglect of that class of work which carries advice in disease to the home, makes research into the real causes and methods of spread of communicable disease, and provides for their necessary isolation and control. The success of Infant Welfare work, which first brought the trained nurse into close relation to the home, and the advice to extend the principle advanced, not only in America, but by the Principal Medical Officer of the English Ministry of Health, all point to the necessity to strengthen our control of disease in the home, and to supplement the mere suppression of nuisances by the real study of disease.

THE CLEAN MILK CRUSADE

Recent Government action with regard to the production and sale of milk has resulted in a good deal of proper interest in the subject. In Bristol the Health Committee have recognised that they are to a large extent dependent on the co-operation of the farmers, and the Farmers' Union is therefore represented on the Milk Advisory Committee which has been set up. A " Milk Week " has been held and propaganda of various kinds undertaken in regard to the production, carriage and storage of milk.

THE USE OF WHITE FLOUR.

Little or no popular attention has been given by the public, since the war, to the question of the composition and suitability of the bread in common use, and a Paper in the April number of the " Practitioner " opportunely comments on this important subject. Mr. Aslett Baldwin, dealing with some causes of intestinal disease, says : " There may be other causes in the production of intestinal disease such as adulteration of food, bad cooking, diseased teeth, and oral sepsis. Investigators show that the two latter are greatly dependent on the use of fine white flour, which is so largely used to-day in civilised communities."

Sir George Newman states that in Great Britain there are three million children in the elementary schools requiring dental treatment. The deterioration of teeth generally in this country is well known, and is coincident with the introduction of white flour. Dr. Samuel Rideal, President of the Society of Public Analysts, in his evidence before a House of Commons Committee in December, 1919, states : " The importance of wholemeal bread as regards the teeth lies in the fact that a great part of the calcium and phosphates are removed from white flour ; and when whole meal is used, the phosphates combine with lime in a mixed diet, particularly vegetables, and thus increase the quantity of calcium phosphates, and so contribute to the formation of bones and teeth . . . Wholemeal bread contains about double the amount of calcium found in fine white flour, and three times the amount of phosphoric acid . . . The importance of phosphates is recognised when we remember the large amoumt of phosphate of calcium found in bones and teeth." Prof. Leonard Hill, F.R.S., declared to the British Association in 1913 : " Wholemeal or standard breads should be substituted for white bread. This question is of vital importance to the children of the very poor brought up on white bread, margarine and tea. To grind the wheat and take away, not only the germ—the very embodiment of growth—but to impoverish the flour in most of the essential organic phosphorous compounds contained in the outer layer, seems a most extraordinary manipulation of the staff of life.

" More extraordinary still is the fact that the State allows this to be done, and does not insist on the miller notifying that the flour has been thus impoverished. If such a thing were done to any other article of food, the law would surely step in."

Mr. Aslett Baldwin quotes instances in this important paper pointing to injury to health occurring in certain races coincidentally with the assumption of the habit of using white bread, and we have only to recall the known facts with regard to polished rice, to grasp the importance of the problem.

And yet it is only with considerable difficulty that one can find a baker who habitually supplies any but white bread. The matter is of course less urgent to those who can afford a generous mixed diet, but its influence on the poor children, quoted by Prof. Leonard Hill, is nothing less than disastrous.

BATH-ROOM FATALITIES.

During the year 1923 four persons lost their lives while taking a bath supplied with hot water by a Geyser heated by gas and not supplied with a flue to carry away the products of combustion. The cause of death was in each case apparently carbon monoxide gas poisoning, as this gas is generated under conditions leading to incomplete combustion of gas.

Early in 1924 a fifth case occurred.

The Public has been specifically warned upon each occasion of the great danger incurred, and the Ministry of Health has been supplied with full particulars, and have referred the matter to a special Committee for full consideration. In addition, the Bristol Gas Company has issued and distributed the Memorandum following, but the public is slow to take heed.

Memorandum of Gas Company.

21*st January*, 1924.

Dear Sir(s),

FIXING OF GEYSERS.

We desire to enlist the co-operation of all firms in the City responsible for the installation of Geysers, with a view to preventing a recurrence of the deplorable accidents which have been reported recently, and we feel assured that we can rely upon your active assistance.

It is absolutely necessary that a flue pipe should be fixed **on every Geyser,** and, where required, effective means taken to prevent down-draught.

Precautions should also be taken to ensure a sufficient supply of air to the Bath-room whilst the Geyser is in use.

The products of Combustion must be carried away by an efficient flue, and must not be allowed to disperse in the Bath-room.

If it is impracticable to fix the apparatus efficiently, with satisfactory means of carrying away the products of combustion, a Geyser should not be installed.

All responsible firms should do everything possible to stamp out, once and for all, **the dangerous practice of fixing Geysers without flues.**

When you are called in to repair a Geyser fixed without a flue, or with an inadequate or defective flue, **strongly warn the consumer and insist upon the imperative need of satisfactory and adequate means of carrying away the products of combustion.**

In the event of a consumer absolutely refusing to have a flue pipe fitted will you kindly notify us, and we should be glad to afford you every assistance in such cases.

Copies of this letter have been forwarded to the Coroner, the Medical Officer of Health, the Sanitary Authority, the Bristol and District Master Plumbers' Association, and the Bristol Association of Building Trades' Employers.

By Order of the Board of Directors,

S. E. HALLIWELL,
Secretary and Commercial Manager.

Dixon Mann points out (Forensic Medicine and Toxicology, 1908) :—

" The use of gas burners on the Bunsen principle to heat large bodies of cold water, as is done in some bathrooms, is attended with considerable risk ; the flame is rapidly cooled by contact with the surface of the water reservoir, and combustion is consequently rendered imperfect, the oxides of carbon —especially the monoxide—with acetylene being given off ; when water is heated in this way, provision for abundant ventilation should be made . . . Water gas, which is sometimes used as a substitute for, or as an adjunct to, coal gas, contains as much as 40 per cent. of carbon monoxide, its dangerous properties being accentuated by the absence of the characteristic odour.

This gas (carbon monoxide) is exceedingly poisonous, according to Haldane (Journal of Physiology, 1895) 0.05 per cent. in otherwise normal air produces distinct toxic symptoms, and with about 0.2 per cent. urgent symptoms are produced ; 1 per cent. is usually accepted as a fatal admixture.

Dixon Mann points out that carbon monoxide is a typical example of a cumulative poison ; its powerful toxic action being due to its affinity for haemoglobin which is about 150 times greater than the affinity of oxygen for haemoglobin. When carbon monoxide is inhaled it gradually displaces the oxygen of the haemoglobin, and forms carbon monoxide haemoglobin, a much more stable compound than oxyhaemoglobin. That is to say, in simple language, it prevents the red blood corpuscles from carrying on their work of supplying and distributing vital oxygen to the needs of the body, by forming a practically stable or fixed compound from which the necessary oxygen cannot be separated and used. When a poison thus attacks the blood itself, the folly of unnecessary exposure to such deadly risk should be obvious.

FOOD POISONING.

During the year information was sent to this Department of six families who were alleged to be suffering from Food Poisoning. Full enquiries were made in each case, and samples of the food, &c., and particulars forwarded to Mr. Bruce White at the Pathological Laboratory of the University of Bristol.

No dangerous organisms were found in any of the samples submitted, which were :—

	No. of persons alleged affected.
Pork	6
Pork and Duck	4
Bacon	2
Salmon and Shrimp Paste	2
Mussels	1
Fried Fish	1

No fatal case occurred.

CITY AND COUNTY OF BRISTOL.

MENTAL DEFICIENCY ACT, 1913.

The following gentlemen have been approved by the Local Authority for the purpose of giving certificates under the provisions of the above Act.

Dr. J. O. Symes, in all cases.
Dr. H. L. Ormerod, Westbury-on-Trym, in all cases of adults.
Dr. Newman Nield, all cases.
Dr. Askins for all cases under the age of 16 years.

In practice Dr. J. O. Symes certifies in all cases with an additional certificate from Dr. Ormerod in cases of adults and Dr. Askins in cases of juveniles.

The Certified Institutions in and about Bristol are :—

Stoke Park, Stapleton	750 Beds.
Royal Victoria Home, Horfield ...	42 ,,
Beech House	90 ,,
Heath House	88 ,,
Hanham Hall	240 ,,
Leigh Court	260 ,,
Clevedon Hall, Clevedon	108 ,,

The above is for all cases under the Act and divided into beds for 768 males and 960 females, certified for 1,578.

Brentry Certified Institution, Westbury-on-Trym Males above the age of 18 years.	230 Beds.
Chasefield Laundry Home, 874 Fishponds Road Females, only adults.	41 ,,
Southmead Institution, children only ...	100 ,,
Stapleton Poor Law Institution, all classes ...	120 ,,
Royal Fort Home, Bristol, approved Home, females	20 ,,

Supervising Officer, W. E. PRICE.

THE WEATHER OF 1923.

Local Observations.

Mean pressure at 9 a.m.	29.911 ins.
Greatest pressure at 9 a.m.	30.707 ins. on Jan. 25th
Least pressure at 9 a.m.	28.790 ins. on Feb. 8th
Total rainfall at Frampton Cotterell	31.20 ins.
Number of rainy days	202.
Heaviest fall in 24 hours	0.95 ins. on Sept. 20th
Total rainfall at Clifton	37.44 ins.
Number of rainy days	224.
Heaviest fall in 24 hours	1.34 ins. on Nov. 13th
Mean temperature (max. 1 min.)	49.0 degs.
Maximum temperature in shade	90.5 degs. on July 12th
Minimum temperature	18.1 degs. on Nov. 27th
Extreme range	72.4 degs.
Hours of bright sunshine (estimated)	1386
Days of bright sunshine	80.
Days entirely overcast	81.
Number of frosty nights	46.

The year opened with a short period of wet and stormy weather, but following a sharp thunderstorm on the 9th January over the South of our islands proved dry, quiet and fairly mild. With its successor came a great change, this month indeed being so wet and stormy that it constituted easily the wettest February on record, the nearest approach in this respect being in 1900, when 6.40 inches of rain were recorded at Clifton falling upon 20 days. Another remarkable feature of the month was its high temperature, it proving easily the warmest month of the winter and also warmer than either November or April in 1922. With March came a welcome change to drier conditions, with a temperature nearer the normal but still well above the average, especially mild conditions prevailing during the concluding days. April proved somewhat changeable with occasional frosts which, partly owing to the previous warmth, were very harmful; while May, after recording a temperature on the 3rd above anything experienced locally since June 7th of last year, became most cold and inclement. Indeed, after the 9th, on scarcely a day did the temperature reach its average for the time of year, while cold rough winds from the West and North-west were most persistent. Very dry weather prevailed throughout June with a deficiency of warmth, but July brought a period of great heat during its second week, followed by some welcome rainfalls at its close. Contrasts were the rule in the succeeding month, the first half being one of warmth and almost continuous sunshine, while after the 15th every day brought more or less rain with low temperatures and boisterous winds. The early autumn months were fairly normal with a plentiful rainfall during October, but with November came real winter, this month proving easily the coldest of the twelve, besides being the coldest November on record in this district. Sharp changes of temperature marked December which upon the whole gave average weather, the year coming to a close with a mild and very wet day.

In regard to the local distribution of rainfall over the twelve months, this will be seen from the following tables, which give the monthly details for Clifton and Frampton Cotterell.

CLIFTON.

1923	TOTAL FALL			Heaviest fall, 24 hrs.		RAINY DAYS		
	Amount	Average	Departure from Av.	Amount	Date	Below 0·04 ins.	Over 0.04 ins.	Total
	ins.	ins.	ins.	ins.				
January	1.94	2.91	—0.97	0.64	5th	10	9	19
February	7.87	2.47	+5.40	0.90	1st	2	23	25
March	1.24	2.43	—1.19	0.24	1st	6	7	13
April ...	2.66	2.32	+0.34	0.49	25th	5	15	20
May ...	1.98	2.20	—0.22	0.41	12th	4	17	21
June ...	0.58	2.56	—1.98	0.34	15th	6	4	10
July ...	2.20	2.83	—0.63	0.65	29th	5	10	15
August ...	4.57	3.68	+0.89	1.12	26th	6	13	19
September	3.20	2.86	+0.34	0.77	19th	6	11	17
October	5.32	3.98	+1.34	0.60	11th	8	20	28
November	2.89	3.33	—0.44	1.34	13th	7	9	16
December	2.97	3.52	—0.55	0.47	25th	7	14	21
Totals ...	37.42	35.09	+2.33	1.34	Nov. 13th	72	152	224

FRAMPTON COTTERELL.

1923	TOTAL FALL.			Heaviest fall, 24 hrs.		RAINY DAYS		
	Amount	Average 15 years	Departure from Av.	Amount	Date	Below 0.04 ins.	Over 0.04 ins.	Total
	ins.	ins.	ins.	ins.				
January	1.46	2.56	—1.10	0.56	5th	9	6	15
February	5.89	2.00	+3.89	0.57	1st	2	22	24
March ...	1.29	2.57	—1.28	0.25	12th	5	8	13
April ...	2.00	1.86	+0.14	0.50	11th	5	12	17
May ...	1.70	1.90	—0.20	0.26	12th	8	14	22
June ...	0.55	2.34	—1.79	0.29	15th	5	3	8
July ...	2.20	2.73	—0.53	0.54	10th	3	10	13
August ...	2.70	3.04	—0.34	0.58	23rd	4	12	16
September	3.66	2.23	+1.43	0.95	20th	2	11	13
October	4.83	3.23	+1.60	0.53	22nd	3	22	25
November	2.02	2.15	—0.13	0.93	13th	10	7	17
December	2.90	3.86	—0.96	0.42	22nd	5	14	19
Totals ...	31.20	30.47	+0.73	0.95	Sept. 20th	61	141	202

Undoubtedly the most noteworthy features of these figures is the remarkable excess shown for February, this being greater than anything hitherto experienced for this month. Its previous record occurred in 1900 when 6.40 inches were recorded at Clifton by the late Mr. R. F. Sturge, F.R. Met. Soc. It may be noted also that February last year was responsible for unusually heavy rains, the local amounts then being 4.87 ins. at Clifton, and 4.13 ins. at Frampton Cotterell. In fact both years upon the whole would have shown deficiencies had it not been for this month's excessive contributions. Apart from February the late summer and early autumn brought a large excess of rainfall, October being very wet after five successive deficient falls from 1917 onwards. On the other hand very dry weather prevailed during January, March and June, this latter month being the driest experienced locally since June 1921, when only 0.24 in. was recorded.

Mean atmospheric pressure during the year was deficient, the monthly details from observations taken locally at 9 a.m. being as follows :—

1923	MEANS.			EXTREMES. Readings at 9 a.m.				
	At 9 a.m.	Average 20 years	Departure from Average	Max.	Date	Min.	Date	Range
	ins.	ins.	ins.	ins.		ins.		ins.
January	30.203	30.025	+0.178	30.707	25th	29.601	3rd	1.106
February	29.548	29.919	—0.371	30.124	1st	28.790	8th	1.334
March	30.023	29.889	+0.134	30.306	14th	29.325	3rd	0.981
April ...	29.726	29.957	—0.231	30.147	2nd	29.306	13th	0.841
May ...	29.928	29.993	—0.065	30.223	24th	29.368	11th	0.855
June ...	30.148	30.019	+0.129	30.448	12th	29.933	9th	0.515
July ...	29.994	30.012	—0.018	30.305	22nd	29.466	31st	0.839
August ...	29.923	29.967	—0.044	30.309	4th	29.437	24th	0.872
September	29.971	30.045	—0.074	30.390	29th	29.371	23rd	1.019
October	29.696	29.943	—0.247	30.233	17th	28.972	23rd	1.261
November	29.793	29.942	—0.149	30.359	11th	29.275	14th	1.084
December	29.978	29.854	+0.124	30.541	14th	29.254	4th	1.287
Means, &c.	29.911	29.964	—0.053	30.707	Jan. 25th	28.790	Feb. 8th	1.917

As might be expected February shows the greatest departure from normal, April also possessing a very large deficiency, much larger indeed than its very ordinary rainfall appears to warrant. On the other hand the three driest months quite properly show the largest excesses, a remarkable feature during June being the uniformly high level the barometer maintained throughout the month.

The mean temperature of the twelve months is deficient, the details for each month and the year being as follows :—

1923	MEANS					EXTREME READINGS					Warmest Day		Coldest Day		No. of frosty nights
	of Min.	of Max.	Max.&Min Combined	Local Average.	Departure from Av.	Max.	Date	Min.	Date	Range	Mean tem.	Date	Mean tem.	Date	
January ...	degs. 34.7	degs. 47.6	degs. 41.2	degs. 38.8	degs. +2.4	degs. 53.3	31st	degs. 23.0	13th	degs. 30.3	degs. 49.6	31st	degs. 34.9	12th	9
February ...	38.5	48.4	43.5	39.9	+3.6	53.1	26th	30.4	5th	22.7	50.7	2nd	37.3	20th	2
March ...	38.1	50.6	44.35	42.4	+1.95	63.1	27th	28.7	5th	34.4	55.4	27th	37.3	23rd	2
April ...	39.2	54.9	47.0	47.8	—0.8	61.8	4th	27.1	10th	34.7	53.05	30th	39.05	10th	4
May ...	42.0	58.7	50.35	53.6	—3.25	74.8	3rd	31.5	24th	43.3	61.8	3rd	42.75	12th	1
June ...	47.4	65.4	56.4	59.3	—2.9	76.0	23rd	35.0	3rd	41.0	62.3	24th	50.1	1st	0
July ...	55.4	72.2	63.8	62.1	+1.7	90.5	12th	43.5	2nd	47.0	76.95	13th	54.2	19th	0
August ...	51.4	69.2	60.3	61.0	—0.7	78.9	8th	40.3	5th	38.6	69.45	14th	52.45	31st	0
September	46.8	62.8	54.8	56.7	—1.9	72.1	29th	33.5	3rd	38.6	65.55	29th	47.05	16th	0
October ...	43.4	55.9	49.6	50.5	—0.9	62.5	9th	29.0	15th	33.5	57.6	9th	41.35	5th	2
November...	29.7	44.1	36.9	43.7	—6.8	54.9	3rd	18.1	27th	36.8	48.8	3rd	24.55	25th	16
December	33.0	46.7	39.8	39.5	+0.3	53.4	22nd	20.3	25th	33.1	47.0	18th	33.35	9th	10
Means, &c.	41.6	56.4	49.0	49.6	—0.6	90.5	July 12th	18.1	Nov. 27th	72.4	76.95	July 13th	24.55	Nov. 25th	46

The most remarkable feature of these figures is the great cold shown for May, June and November, the mean for the latter month being a record for this district. Previously the lowest mean observed was 37.3 degrees in 1915, and then as now the month proved easily the coldest of the twelve. In the case of May, this month has not been so cold since 1902, in which year the mean was as low as 49.4 degrees, the late Mr. R. F. Sturge stating it to be the coldest May since 1887. Looking at the other side of the picture it will be seen that the winter months were without exception warm, as was also July, thanks entirely to ten days of exceptional heat from the 6th to the 16th.

Thunderstorms were neither frequent nor severe in this vicinity during the year, but several storms were experienced during July and the latter half of August. Snowfalls were practically non-existent over our South-western district, but in the North and further East there were frequent though not serious falls during November and December.

Gales were most frequent in February, and October and were also very general on the opening and closing days of August and throughout the third week of September. While May gave no noteworthy gales, cold and stormy North-westerly winds were of most unusual frequency.

H. H. HARDING, F.R. Met. Soc.

Occurrence of a sporadic case of Cowpox near Bristol.

On the 5th January, 1923, a child of 5 Rosemary F . . . , unvaccinated, was admitted to the Keynsham Isolation Hospital suffering from Diphtheria. Swabs from both throat and nose gave positive results. The case progressed without unusual symptoms until February 2nd, when there appeared on the skin covering the popliteal spaces of both legs a crop of papules, becoming vesicular on the second day, pustular on the fourth day ; scabbing began on the seventh day, and the scabs were still adherent when the patient was discharged on February 17th. When the eruption was photographed on February 4th one or two of the vesicles presented rather characteristic appearances of vaccinia, the others being smaller discrete vesicles. Dr. Willett, who was in charge of the Hospital, and whose practice in the neighbouring country district gave him special opportunity of observing cowpox, expressed the opinion that this was the nature of the case, but, as the child had been in hospital for some three weeks or more, and had had no opportunity of mixing with infected persons on any farm, and as we could get no history of possibly infected articles, such as stockings supplied to the child, we were at a loss to explain the occurrence. On communicating with the Ministry of Health, Dr. Macewen kindly came down to Bristol and saw the case with Dr. Willett, and, while not negativing our suggestion of cowpox, suggested that it might possibly be a Diphtheritic eruption inoculated by the child rubbing the thin skin over the popliteal spaces with her fingers. In order to test this Dr. Willett forwarded a crust from the child's leg, and the bacteriological report is appended ;

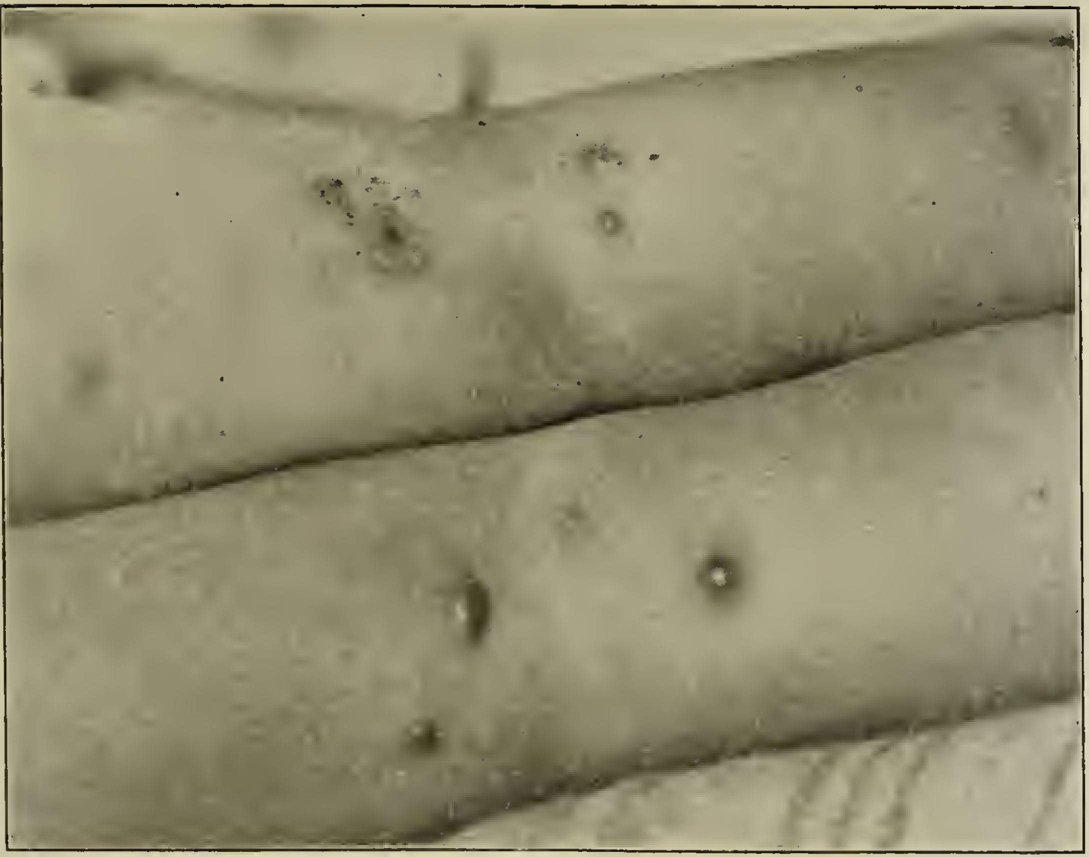

Photo by H. C. Leat.

Bacteriological Report on crust from child's leg, received on February 7th, 1923.

Feb. 8th.—Microscopic Exam. a few gram-staining cocci seen, no Diphtheria bacilli. Cultures—Growth of Staph. albus. No growth of bacilli.

Feb. 9th. Inoculated original material on calf, this gave rise to small but definite vesicles of characteristic vaccinal appearance.

Feb. 10th. Allergic reaction on a sensitised calf.

Result 11th. The material gave a slight positive reaction—not so marked as the control of current lymph. This might be due to dilution of the experimental material.

Feb. 16th. Material scraped from calf inoculated on Feb. 9th with original material, inoculated on to normal calf.

Feb. 21st. Inoculation had " taken," giving continuous lines of vesicles—well defined and characteristic of vaccinia. This material was collected.

Feb. 23rd. This calf vaccinated with current lymph.

Feb. 28th. No reaction from vaccination with current lymph.

Feb. 29th. Therefore the material gives the definite reaction of cowpox.

All enquiry as to the possible source of infection proved negative. Dr. Heaven, in whose district the case occurred, made special enquiry as to the hospital milk supply, and it was found that the man who supplied the hospital obtained milk from only two farms, further enquiry at the farms showed that no workers and no cattle had shown any signs of illness, and no fresh cattle had been bought for a long time before the case arose. It therefore remains unexplained.

The last known outbreak of Cowpox in this district was given by Dr. Heaven in the Keynsham R.D.C. Annual Report for 1913. In August of that year several milking cows on a farm at Keynsham suffered from sores on the teats closely resembling those of " casual Cowpox." Two milkers had sores on their hands, also strongly suggestive of Cowpox. Experimental investigation confirmed the view that the disease was from " casual Cowpox." The origin of the outbreak could not be ascertained, and no history of similar illness in cows anywhere near could be found. Only two cows had recently been bought by the farmer, they were stated to be perfectly sound when they reached the farm, they were not the first to suffer, and no history of illness amongst the cows at the two farms from which these were purchased could be obtained.

CAUSES OF SICKNESS.

Small Pox.

No case of Smallpox was reported during the year, the last introduction, limited to 7 cases, occurred in December—January 1920-21, and involved dislocation of the Sanatorium work at Novers Hill.

In 1903, under similar conditions, it was introduced into Bristol on 15 separate occasions, but was in no instance allowed to assume epidemic proportions.

50 Medical visits to suspected areas were made during the year.

During the last 40 years there have been 101 introductions of Smallpox into the City (22 of these were through the Port). (See Table).

The total number of known cases arising out of these introductions was 1235 and 126 deaths occurred.
This gives an average of 11 cases per introduction over the whole period.

In June, owing to the prevalence of Smallpox in Gloucester and on the application of the Gloucester Health Committee, two Inspectors from the Bristol Health Department—Mr. H. C. Leat and Mr. A. E. King—were lent to Gloucester to undertake the house-to-house visiting for cases and contacts of Smallpox. Dr. W. H. Davison, the Acting M.O.H. for Gloucester, stated in a letter received :

> " During the time these two Inspectors have been with me I have formed the highest opinion of their capabilities, and they have given me their very best services ; in fact I do not believe that the amount of work involved in dealing with contacts could have been satisfactorily dealt with had I not their skilled assistance."

Special advice as to facilities for vaccination and re-vaccination was issued, and the Bristol Education Committee provided facilities for the Public Vaccinators to vaccine or re-vaccinate school children at the schools, and during July 7059 children were protected.

Table showing Introductions of Smallpox since 1884.

Year	Total Cases	Total Deaths	Port Introductions	Total Introductions	Remarks.
1884	7	—	—	3	
1885	33	10	4	13	
1886	85	8	1	6	
1887	163	13	—	4	
1888	224	26	1	2	
1889	1	—	—	1	
*1890	1	—	1	1	
1891	16	—	1	2	
1892	—	—	—	—	
1893	165	20	1	7	Continuation of 1893 Epidemic
1894	201	16	—	5	11 tramp introductions.
1895	4	—	—	1	
1896	42	5	—	3	
1897	10	1	1	2	
1898	2	—	1	2	
1899	—	—	—	—	
1900	—	—	—	—	
1901	1	—	1	1	
1902	4	2	3	3	
1903	46	3	1	15	
1904	34	1	—	6	
1905	13	—	—	5	
1906	32	—	—	4	
1907	6	1	1	4	
1908	1	—	—	1	
1909	39	9	—	3	
1910	4	—	1	2	
1911	—	—	—	—	
1912	62	3	2	2	
1913	—	—	—	—	
1914	—	—	—	—	
1915	32	7	1	2	
1916	—	—	—	—	
1917	—	—	—	—	
1918	—	—	—	—	
1919	—	—	—	—	
1920	—	—	—	—	
1921	7	1	?1	1	
1922	—	—	—	—	
1923	—	—	—	—	
Totals ...	1235	126	22	101	

* Compulsory Notification began.

It will be noted that since Notification attained full working efficiency, the limitation of introduced outbreaks has been very successful. Thus of the 15 introductions in 1903, 10 were limited to the original infected houses; and since 1895 these and 57 introductions only produced an average of 5 resultant cases each.

It is remarkable that the acute prevalence of a very mild epidemic of Smallpox in many parts of Gloucestershire, curiously resembling the type observed in the Bristol 1903-4 outbreaks, did not result in a single introduction into Bristol throughout the year.

The Medical Officer of Health, at the request of the Ministry, and with the consent of the Committee, visited as Medical Consultant several doubtful cases in the West of England, Worcester, Evesham, Totnes, Teignmouth and Plymouth.

Scarlet Fever.

The notifications and deaths by quarters numbered :—

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Notifications ...	643	363	199	239	1444
Deaths ...	10	7	2	—	19

The disease was of a mild type, but if unsuitably circumstanced cases are not removed to hospital, home-overcrowding and consequent spread may result in development of septic complications and heightened mortality.

Inadequate Hospital accommodation prevented the removal of many urgent cases, and from December, 1922, to July, 1923, one of the Sanatorium Blocks (P) was taken over for Scarlet Fever.

SCARLET FEVER.

	1	2	3	4	5
Year	Cases Notified	Attacks per 100,000 Living	Deaths	Deaths per 100,000 Living	Case Mortality per cent.
1890	559‡	253	40	18	7.1
1891	888	400	37	17	4.1
1892	1,442	644	47	21	3.2
1893	1,245	553	35	16	2.8
1894	485	214	16	7	3.2
1895	562	252	16	7	2.8
1896	1,352	586	59	24	4.3
1897	511	220	18	7	3.5
1898*	382	120	14	4	3.6
1899	697	217	13	4	1.8
1900	1,971	606	39	12	1.9
1901	2,206	670	36	10	1.6
1902	2,724	793	66	19	2.4
1903	2,168	639	49	14	2.2
1904‖	1,258	366	36	10	2.8
1905	1,085	302	39	10	3.5
1906	1,019	280	27	7	2.6
1907	886	240	26	7	2.6
1908	486	127	10	2	2.0
1909	692	183	12	3	1.7
1910	1,216	317	12	3	0.9
1911	953	266	16	4	1.6
1912	580	161	12	3	2.0
1913	1,738	471	6	1	0.3
1914	2,281	611	22	6	0.9
1915	1,069	302	18	5	1.7
1916	627	182	10	2	1.5
1917	257	76	3	1.3	1.1
1918	278	82	6	1.7	2.1
1919	363	100	2	0.5	0.5
1920	1,411	375	9	2.3	0.6
1921	1,576	412	7	1.8	0.4
1922	1,852	482	18	4.6	0.9
1923	1,444	374	19	4.9	1.3

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* City Extended. ‖ The City was further Extended in 1904.

‡ Notification commenced on February 12th, 1890, so that the case mortality for this year is probably overstated.

Diphtheria.

The notifications and deaths for the year were :—

		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
1923	Cases	218	115	121	283	737
	Deaths	11	6	7	25	49
compared with						
1922	Cases	391	179	137	179	886
	Deaths	31	16	15	12	74
1921	Cases	335	227	250	614	1426
	Deaths	17	13	22	55	107

In 1902, the deaths from diphtheria numbered 189.

Arrangements are made for protection of the hospital staff, as authorised by the Committee (Schick method).*

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* Early in 1922 the whole of the Ham Green Nursing and Domestic Staff (135) were tested, and the positives (33) duly protected with T.A.T. Each new entrant is similarly protected before undertaking the nursing of Diphtheria cases.

Diphtheria (including Membranous Croup).

Year	Cases Notified	Attacks per 100,000 Living	Deaths	Deaths per 100,000 Living	Case Mortality per cent.
1890	56‡	25	16	7	28.5
1891	70	31	16	7	22.8
1892	106	47	38	16	35.8
1893	141	59	53	23	37.5
1894	128	56	50	22	39.0
1895	165	69	34	14	20.6
1896	258	111	38	16	14.7
1897	205	88	36	15	24.7
1898*	217	68	44	13	20.2
1899	215	67	33	10	15.3
1900	512	157	103	31	21.1
1901	908	275	124	37	13.6
1902	1,109	325	189	54	17.0
1903	1,134	331	119	35	10.4
1904‖	1,051	305	105	30	9.9
1905	1,021	284	59	16	5.7
1906	839	231	82	22	9.7
1907	926	251	68	18	7.3
1908	924	243	69	18	7.4
1909	712	188	55	14	7.7
1910	556	145	38	9	6.8
1911	584	163	42	11	7.1
1912	643	178	48	13	7.4
1913	762	206	33	8	4.3
1914	633	174	39	10	6.1
1915	505	143	36	10	7.1
1916	406	118	30	8	7.3
1917	376	112	27	12	7.1
1918	420	124	36	10	8.5
1919	448	124	27	7	6.0
1920	965	256	78	20	8.0
1921	1,426	373	107	28	7.5
1922	886	230	74	19	8.3
1923	737	191	49	12	6.6

‡ Notification commenced February 12th, 1890.

* Enlarged City. ‖ City again extended in 1904.

Antitoxin came into use about the year 1895, and was in general use early in the present century.

Enteric Fever.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Notifications	9	4	6	13	32
Deaths ...	—	1	1	3	5

This disease, one of the few dependent directly on "insanitary" conditions, is practically under control.

ENTERIC FEVER (including Paratyphoid).

Year	1 Cases Notified	2 Attacks per 100,000 Living	3 Deaths	4 Deaths per 100,000 Living	5 Case Mortality per cent.
1890‡	122	55	33	14	27.0
1891	116	52	23	10	19.6
1892	135	60	18	8	13.3
1893	122	54	26	11	21.3
1894	90	39	21	10	23.3
1895	89	59	22	9	24.7
1896	110	47	20	8	18.1
1897	343	147†	47	20	17.4
1898*	113	35	26	8	23
1899	219	68	35	10	16
1900	293	90	44	13	15
1901	281	85	40	12	14
1902	319	93	58	17	18
1903	134	39	21	6	15
1904§	172	50	26	7	15
1905	76	21	13	3	17
1906	120	33	21	5	17
1907	74	20	15	4	20
1908	103	27	10	2	9
1909	66	17	12	3	18
1910	85	22	9	2	10
1911‖	148	41	18	5	12
1912	79	21	7	1	8
1913	64	17	5	1	7
1914	98	27	9	2	9
1915	45	12	13	3	28.8
1916	17	4	2	0.5	11.7
1917	52	15	4	1.7	7.6
1918	69	20	8	2.3	11.5
1919	33	9	6	1.6	18.1
1920	48	12	4	1.0	8.3
1921	35	9	2	0.5	5.7
1922	31	8	1	0.2	3.2
1923	32	8	5	1.2	15.6

* Extended City. † Milk Outbreak introduced from the County.
‡ Notification commenced February 12th, 1890, so that the case mortality for this year is probably overstated.
§ City again extended in 1904. ‖ Localised Outbreak in St. James.

Encephalitis Lethargica.

This newly-recognised disease was much in evidence in Bristol during 1919-20-21, when the Ministry instructed a special inquiry into its prevalence.* It continued in some excess over the first quarter of 1921 (45 cases—12 deaths), and thereafter subsided.

1923	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Cases ...	8	8	2	5	23
Deaths ...	5	3	2	3	13

* Reports on Public Health and Medical subjects.
No. 11. Encephalitis Lethargica—Dr. Allan C. Parsons
Ministry of Health, 1922. 10/- net.

Malaria.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Notifications	2	1	5	1	9
Deaths ...	—	—	—	1	1

As the anopheles mosquito, the " porter " of malaria, is not extinct in England, the Ministry is keeping a constant watch against the introduction of virulent types of malaria from abroad.

Influenzal Pneumonia and Acute Primary Pneumonia.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Notifications ...	102	95	60	95	352

This disease is personal and is most readily acquired in crowded assemblies.

Measles.

Deaths :—

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
4	16	7	7	34

During the year, 1183 cases of children over 5 years of age were reported from the Public Elementary Schools. All these were visited by the Home Nurses and precautions advised.

The last prevalence of measles was in the first and second quarters of 1918, when 207 deaths occurred, and, as this disease recurs with fair regularity every 3 or 4 years, it is over due; available Hospital provision for urgent cases will save life.

The disease was notifiable from 1915 to the end of 1919, when notification was discontinued, so that we must again rely upon information from medical practitioners, home nurses and others as to cases urgently requiring attention, preferably to be given in hospital when hospital room becomes available.

Whooping Cough.

Deaths :—

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
31	36	8	2	77

This is the highest number of deaths from this disease since 1915.

345 cases of children of school age were reported from the Public Elementary Schools, and the homes were visited by the Home Nurses.

Chickenpox and Mumps.

842 cases of Chicken-pox and 447 cases of Mumps occurring amongst school children were also reported and the homes visited by the Home Nurses.

Infantile Diarrhœa.

The small number of deaths from this disease through the summer is again noteworthy, and in large part accounts for the very low infant mortality. As a rule, extreme heat in the late summer and early autumn is accompanied by a considerable diarrhœal mortality ; the summer was not marked by extreme heat, and was fairly wet.

Deaths under 2 years of age :—

	1911	1913	1921	1922	1923
August ...	194	40	16	6	7
September ...	124	48	14	12	14
	318	88	30	18	21

As shown in detail in the Report for 1922, it is the prolongation of the summer heat wave into the late summer and early autumn that is accompanied by excess of Infant Mortality from Diarrhœa.

These indications were notably present in 1911, whilst in 1921 the extremely hot weather of July was not continued through August, and in 1922, though June was a hot month to begin with, it soon became cooler ; and the weather was inclement, cold and wet, through August ; September, though dry, showed a low temperature.

Bronchitis and Pneumonia.

These diseases amongst children under one year of age assist materially in raising the infant mortality rate, when inclement weather conditions prevail during the two winter quarters. A concurrent cold spring and hot August–September will thus bring about a high infant mortality rate ; the main factor is, however, summer diarrhœa. The average number of deaths in the two winter quarters for 15 years past is 93.7. More than 100 deaths were registered from bronchitis and pneumonia in infants in 1907-8, 1908-9, 1911-12, 1914-15, 1916-17 and 1918-19.

The effect of fatal intercurrent epidemics, such as measles must also be taken into account as adding to the infant mortality.

Percentage to total deaths of infants under one year, 1904-1923.

	Bronchitis, Pneumonia & other Diseases Respiratory Organs	Diarrhœa and Enteritis	Measles	Whooping Cough
1904	15.8	16.6	1.2	4.7
1905	18.8	11.0	2.4	4.4
1906	14.6	14.8	2.5	4.3
1907	16.4	11.5	0.6	1.8
1908	21.5	13.3	1.9	5.8
1909	13.8	13.9	3.1	3.4
1910	16.3	11.1	1.3	4.8
1911	12.3	28.3	2.3	5.7
1912	25.0	7.0	4.2	3.3
1913	13.3	18.4	1.2	2.7
1914	16.6	14.7	1.1	3.5
1915	18.2	15.6	1.7	6.4
1916	15.8	13.7	3.0	1.4
1917	26.3	9.6	—	2.6
1918	16.7	12.0	5.2	3.3
1919	18.2	7.7	—	3.8
1920	20.4	10.1	3.5	1.0
1921	15.0	15.0	0.5	4.4
1922	22.2	8.2	1.7	2.1
1923	16.5	11.8	0.4	6.6

Birth-rate, Death-rate, and Analysis of Mortality during the Year 1923.

(*Provisional figures. The rates for England and Wales have been calculated on a population estimated to the middle of* 1923, *while those for the towns have been calculated on populations estimated to the middle of* 1922. *The mortality rates refer to the whole population as regards England and Wales, but only to civilians as regards London and the group of towns.*)

	BIRTH. RATE PER 1,000 TOTAL POPU-LATION	ANNUAL DEATH-RATE PER 1000 LIVING.									RATE PER 1,000 BIRTHS.		PERCENTAGE OF TOTAL DEATHS.		
		All Causes.	Enteric Fever.	Small.pox	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria	Influenza.	Violence.	Diarrhœa and Enteritis (under 2 years).	Total Deaths under One Year.	Causes of Death certified by Registered Medical Practitioners.	Inquest Cases.	Uncertified Causes of Death.
England and Wales ...	19.7	11.6	0.01	0.00	0.14	0.03	0.10	0.07	0.22	0.44	7.7	69	92.0	6.9	1.1
105 County Boroughs and Great Towns, including London	20.4	11.6	0.01	0.00	0.15	0.03	0.12	0.09	0.22	0.40	9.9	72	92.2	7.2	0.6
155 Smaller Towns (1921 Adjusted Populations 20,000—50,000) ...	19.8	10.6	0.01	—	0.19	0.02	0.10	0.06	0.21	0.38	5.4	69	92.6	6.1	1.3
London	20.2	11.2	0.01	0.00	0.08	0.02	0.09	0.13	0.17	0.45	10.2	60	90.8	9.1	0.1

CITY OF BRISTOL. Cases of Infectious Disease and Tuberculosis notified during the Year 1923.

Notifiable Diseases.	Cases Notified in Whole District.								Total Cases Notified in each Locality.										
	At all Ages	At Ages—Years.																	
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards	Ashley	Bedminster	Bristol Central	Clifton	Knowle	St. George	St. Philip	Stapleton	Westbury-on-Trym	Public Insts.	Not belonging to Borough
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria including Membranous Croup)	737	15	203	356	98	55	10		64	87	101	95	32	160	109	15	20	47	7
Erysipelas	141	3	5	8	14	33	51	27	10	30	15	11	12	20	25	4	4	9	1
Scarlet Fever	1444	1	297	892	183	67	3	1	154	197	136	223	75	263	200	89	48	50	9
Typhus Fever	1						1												1
Enteric Fever	32		3	4	11	6	7	1	4	3	3	9	3			2		5	3
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	25				2	23				4	3	3		3		1		10	1
Cerebro-Spinal Meningitis	4	2	1			1				1				1	2				
Poliomyelitis	11		5	4	1	1			3	2	2		1	1	2				
Acute Primary Pneumonia	270	7	26	53	33	82	49	20	20	40	29	18	13	49	54	14	4	25	4
Acute Influenzal Pneumonia	82		2	5	8	25	26	16	10	5	13	3	2	11	10	4	2	20	2
Malaria	9				1	7	1		1	1		1		2	1		1		2
Measles (Port)	2					2													2
Dysentery	15				3	5	7									1		12	2
Trench Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Encephalitis Lethargica	24		2	2	3	3	9	5	1	13	2		1	3	1	3			
Acute Polio Encephalitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ophthalmia Neonatorum	82	82							1	20	35	4	6	5	5		6		
Pulmonary Tuberculosis	847	2	17	134	213	326	137	18	79	149	110	98	34	156	137	59	24		1
Tuberculous Meningitis	39	4	18	13	2	2			5	8	3	5		4	8	2	3	1	
Tuberculosis of Peritoneum and Intestines	48	6	6	18	8	5	3	2	6	5	10	6	1	6	6	5	3		
Tuberculosis of Spinal Column	15		1	2	5	5	2		4	1	2	2	1	1	3	1			
Tuberculosis of Joints	51		9	23	12	5	2		6	9	4	9	5	8	7	3			
Tuberculosis of other Organs	69		5	25	13	15	10	1	12	7	12	11	4	9	6	6	2		
Totals *	3948	122	600	1539	610	668	318	91	380	582	480	498	190	702	576	209	117	179	35
						M.		F.											
Births ...						3830		3590	622	1205	1542	824	235	1136	1092	423	341	...	...
Stillbirths ...						149		112	30	20	87	27	11	36	33	6	11	...	...
Totals ...						3979		3702	652	1225	1629	851	246	1172	1125	429	352	...	..
						7681													

Notifiable Diseases.	No. of Cases Removed to Hospital and Sanatorium from each Locality.										
	Ashley	Bedminster	Bristol Central	Clifton	Knowle	St. George	St. Philip	Stapleton	Westbury-on-Trym	Public Insts.	Not belonging to Borough
Small-pox	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...
Diphtheria including Membranous Croup)	60	78	89	88	28	137	103	12	18	45	7
Erysipelas	1	2	3	3	1	2	3	1	..	9	1
Scarlet Fever	58	121	72	153	35	113	117	50	36	49	9
Typhus Fever											1
Enteric Fever	3	3	3	2	1			1		5	3
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever		2				3		1		10	1
Cerebro-Spinal Meningitis		1					2				
Poliomyelitis		1			1		1				
Acute Primary Pneumonia	5	13	23	10	4	11	28	3	2	23	4
Acute Influenzal Pneumonia	3	1	9	1	1	1	4		1	20	2
Malaria							1		1		1
Measles (Port)											2
Dysentery								1		12	2
Trench Fever	...	...	...	...	...	...	...	...	...	...	...
Acute Encephalitis Lethargica	1	4	2			2					
Acute Polio Encephalitis	...	...	...	...	...	...	...	...	...	...	...
Ophthalmia Neonatorum											
Pulmonary Tuberculosis											
Tuberculous Meningitis											
Tuberculosis of Peritoneum and Intestines											
Tuberculosis of Spinal Column											
Tuberculosis of Joints											
Tuberculosis of other Organs											
Totals *											

CITY OF BRISTOL.

Causes of, and Ages at, Death during the Year 1923.

	Cause of Death.	Deaths in Whole District at Subjoined Ages.									Deaths in Localities (at all Ages).											Deaths in Public Institutions.
		All Ages	Under 1	1 & under 2	2 & under 5	5 & under 15	15 & under 25	25 & under 45	45 & under 65	65 & upwards	Ashley	Bedminster	BristolCentral	Clifton	Knowle	St. George	St. Philip	Stapleton	Westbury-on-Trym	Mun. Institution. (Home Add. unknown)	Not belonging to Borough	
	TYPHUS FEVER *	1	...	...	.	...	...	..	...	1	...	...	...	...	...	...	...	...	...	...	1	1
1	ENTERIC FEVER	5	...	.	...	...	2	1	2		1	...	1	2	...	...	...	...	...	...	1	4
2	SMALLPOX	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
3	MEASLES	34	2	19	13		...	...	...	...	1	5	7	7	...	3	7	2	2	...	...	4
4	SCARLET FEVER	19	1	2	10	6	...	...	...	...	2	2	2	4	...	5	3	1	...	...	...	17
5	WHOOPING COUGH	77	31	37	8	1	...	...	...		5	14	11	4		29	10	2	2	...	...	9
6	DIPHTHERIA and CROUP	49	1	3	23	20	...	1	1	...	4	7	7	7	.	12	8	1	2	..	1	42
7	Influenza	45	2	...	...	1	1	11	13	17	9	6	9	3	...	8	6	3	..	..	1	14
8	Erysipelas	11	3	..	..	.	...	5	1	2	3	1	1	2	...	..	3	.	...	...	1	7
9	Phthisis (Pulmonary Tuberculosis)	367	2	1	4	10	85	165	92	8	35	56	55	37	19	66	57	20	13	..	9	126
10	Tuberculous Meningitis	48	4	8	12	16	4	3	1	...	4	8	2	6	2	4	10	5	3	...	4	29
11	Other Tuberculous Diseases	50	8	3	1	6	13	7	11	1	7	3	7	8	3	7	5	2	1	...	7	26
12	Cancer, malignant disease	537	...	...	...	...	4	36	258	239	83	77	66	74	25	52	72	29	13	...	46	193
13	Rheumatic Fever	24	...	...	1	6	5	7	1	4	1	6	3	1	1	2	5	3	1	...	1	9
14	Meningitis	22	6	3	6	3	1	1	1	1	1	8		2	...	5	5	1	...	...	...	10
15	Organic Heart Disease	465	1	...	...	8	17	36	125	278	75	57	57	68	18	72	56	32	21	...	9	63
16	Bronchitis	294	16	5	1	...	1	10	56	205	33	47	51	32	7	48	53	16	5	...	2	61
17	Pneumonia (all forms)	343	59	35	17	8	13	52	75	84	32	55	55	31	9	50	68	15	9	...	19	168
18	Other Diseases Respiratory Organs	65	2	1	4	1	4	6	23	24	10	9	10	6	2	8	13	3	1	...	3	15
19	DIARRHŒA and ENTERITIS	62	55	7	...	..	...	...		..	2	12	13	8	...	11	10	1	2	..	3	33
20	Appendicitis and Typhlitis	32	...	...	1	3	6	7	12	3	4	5	4	4	1	4	3	...	...	...	7	26
21	Cirrhosis of Liver	15	...	...	...	...	1	...	12	2	1	3	..	4	1	1	2	3	...	...	...	5
21a	Alcoholism	1	...	...	...	...	..	1	..	...	...	..	..	...	...	..	...	...	...	...	1	1
22	Nephritis and Bright's Disease	138	1	...	...	2	6	28	44	57	22	22	10	17	9	14	19	9	2	...	14	59
23	Puerperal Fever	7	...	...	..	.	1	5	1	...	.	1	2	1	...	3	...	...	...	...	...	7
24	Other Accidents and Diseases of Pregnancy and Parturition	16	...	.	...	...	1	14	1	..	1	2	2	4	...	...	3	2	...	...	2	4
25	Congenital Debility and Malformation, including Premature Birth	188	187	1	...	...	...	...	..	..	16	28	32	20	4	28	30	14	7	1	8	68
26	Violent Deaths	141	6	1	8	13	17	25	35	36	9	26	18	13	9	13	17	5	6	...	25	85
27	Suicide	24	..	..	...	...	2	7	10	5	2	3	4	3	2	3	2	3		...	2	9
28	Other Defined Diseases	1441	79	9	16	35	33	127	329	813	199	181	155	199	73	185	225	84	46	...	94	560
20	Diseases ill-defined or Unknown	1	..	...	...	...	.	...	1			. .	.	1	..	.	...	...	..	..	...	...
	All Causes	4522	466	135	125	139	217	555	1105	1780	562	644	584	568	185	633	692	256	136	1	261	1655
Sub-Entries included in above figures	14a Cerebro-Spinal Meningitis	3	2	...	1	...	...	...	...	...	...	...	..	...	...	1	2	...	..	...	...	2
	28a Poliomyelitis	3	...	...	..	1	...	1	1	...	...	2	1	..	...	...	...	...	...	...	...	1
	Malaria	1	...	..	.	...	...	1	...	...	...	...	...	..	...	1	...	..	..	...	...	...
	Encephalitis Lethargica	13	..	1	1	1	1	1	3	5	..	8	1	...	1	1	1	...	1	...	...	3
	Dysentery	4	...	...	...	...	...	2	2	...	...	...	...	...	..	2	2	..	...	..	..	4
	Venereal Diseases	17	8	...	1	...	1	1	6	...	...	1	2	3		3	3	1	...	...	4	12
	Deaths of Infants under 1										31	72	74	46	10	82	93	25	15	1	17	...
	Number of Births										M.336 F. 291 627	M.638 F. 577 1215	M.817 F. 744 1561	M.436 F. 388 824	M.120 F. 130 250	M.576 F. 549 1125	M.547 F. 529 1076	M.214 F. 225 439	M.137 F. 132 269	M- 32 F. 39 71	... .	... ...

CITY RATES.

No. of Births.		Birth Rate.	Death Rate.			Principal Epidemic Diseases (Zymotic Rate	Infantile Rate.
			This Year.	Last Year.	10 Years' Average		
M. 3853	F. 3604	19·33	11·72	13·26	13·99	0·64	62·49
7457							

Average age at Death of persons aged 65 and upwards ..75 years 7 months.
Births of Illegitimate Children . (Males 127 Females 142)—269
Total Deaths " " under 5 (" 13 " 20)— 33
Inquests 393

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* The death from Typhus was of a man admitted to Hospital ex ship from Odessa.

One death occurred from Enteric Fever of a man removed to Hospital from a ship.

CITY OF BRISTOL.

INFANT MORTALITY during the Year 1923.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH	Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total Under One Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths Under One Year
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	2
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Whooping Cough	...	...	...	...	...	1	7	1	...	...	2	4	3	4	2	7	31
Diphtheria and Croup ...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Erysipelas	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	3
Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...	...	4
Abdominal Tuberculosis ...	...	...	...	...	...	...	1	1	1	...	...	...	1	...	1	...	5
Other Tuberculous Diseases	...	...	...	...	...	1	1	...	...	1	...	...	...	2	...	...	5
Meningitis (not Tuberculous)	...	...	...	...	...	...	...	...	2	...	2	...	...	2	...	...	6
Convulsions	4	1	1	1	7	...	...	1	1	...	1	...	1	...	...	...	11
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	1	1	3	3	3	1	2	1	...	...	1	1	1	17
Pneumonia (all forms) ...	2	1	4	...	7	1	6	5	3	2	4	4	2	9	8	8	59
Diarrhœa	...	...	...	...	...	1	...	2	...	...	1	...	...	...	2	1	7
Enteritis	1	3	3	...	7	4	6	9	4	5	6	...	2	4	1	...	48
Gastritis	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2
Syphilis	2	...	...	...	2	1	2	1	1	...	1	1	...	...	...	...	9
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying ...	2	1	...	1	4	...	1	...	...	...	...	...	...	...	...	...	5
Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis	16	3	...	1	20	...	...	...	...	...	...	...	...	...	...	...	20
Congenital Malformations ...	13	4	4	1	22	4	4	4	1	...	2	1	...	...	1	...	39
Premature Birth	69	18	3	2	92	5	4	1	...	...	...	...	...	...	...	...	102
Atrophy, Debility &Marasmus	9	6	8	2	25	5	4	6	1	2	1	1	3	...	...	...	48
Other Causes	15	4	1	...	20	3	4	1	3	2	2	1	...	3	1	1	41
Totals ...	133	41	24	9	207	32	44	35	18	14	25	15	13	25	18	20	466

		M.	F.
Net Births during the Year	Legitimate	3726	3462
	Illegitimate	127	142

		M.	F.
Net deaths during the Year	Legitimate Infants	273	170
	Illegitimate Infants	13	10

1923.

TUBERCULOSIS.

CASES NOTIFIED.

Age Periods ...	0—1	1—5	5—10	10—15	15—20	20—25	25—35	35—45	45—55	55—65	65 & up.	Total
Pulmonary. Males ...	—	12	38	24	46	36	94	62	61	27	9	409
Pulmonary. Females ...	2	5	29	43	57	74	118	52	34	15	9	438
Total Pulmonary Cases	2	17	67	67	103	110	212	114	95	42	18	847
Non-Pulmonary. Males	5	23	27	22	9	13	8	5	5	2	1	120
Non-Pulmonary. Females	5	16	17	15	9	9	13	6	5	5	2	102
Total Non-PulmonaryCases	10	39	44	37	18	22	21	11	10	7	3	222
Total Pulmonary and Non-Pulmonary Cases ...	12	56	111	104	121	132	233	125	105	49	21	1069

BRISTOL MUNICIPAL TUBERCULOSIS DISPENSARIES.

19 Portland Square.
4 Redcliffe ParadeWest.
1923.

Total patients treated, 3,883.
Total Attendances, 22,573.
Total number of re-examinations, 2,838.

New Cases Examined—

Pulmonary Tuberculosis	606	(346 Insured,	260 Non-insured)
Stigmata and other forms of Tuberculosis	237	(20 ,,	217 ,,)
Observation at Dispen- Dispensary ...	102	(41 ,,	61 ,,)
Non-Tuberculous ...	454	(118 ,,	336 ,,)
Total ...	1,399	(525 ,,	874 ,,)

Total attendances of School Children	8,039
X-Ray examinations	584
Sputum examinations	888
Total injections	1,602
Artificial Pneumothorax	49
No. of visits (domiciliary) by Tuberculosis Officers ...	822
No. of visits to Patients by Tuberculosis Nurses ...	7,622
No. of cases seen by Consulting Surgeon	95
No. of attendances of Cases seen by Consulting Surgeon	136

C. J. CAMPBELL FAILL, F.R.C.P., Ed.,
Tuberculosis Officer.

L. HEARN, M.B., B.S., Durh.,
Assistant Tuberculosis Officer.

TUBERCULOSIS.

Sanatorium Benefit (1923).

At the end of the war the Council had provided 50 beds at Winsley for early cases of pulmonary phthisis and 52 beds at Ham Green ; also Hospital provision for late cases, 20 beds at Ham Green and 21 beds at Clift House. During the past year the Committee again took up the question of non-pulmonary tuberculosis and surgical tuberculosis, delayed by the war. At Novers Hill, 36 cases of early tuberculosis conditions in children were admitted until November, 1920, when they were transferred to Snowden House, where 18 children were temporarily accommodated until October, 1921, on which date the Institution was closed and the patients transferred to Frenchay Park Sanatorium.

Clift House Hospital, accommodating 21 advanced cases, was closed in September, 1921, and the patients transferred to Ham Green Sanatorium, where the 52 additional beds for advanced cases were in occupation until November, when 26 were taken over for acute Diphtheria cases to supplement the insufficient accommodation at the Fever Hospital, and the remaining 26 beds were also required for Diphtheria in January, 1922.

In November, 1922, to meet the pressure of Scarlet Fever, it became necessary to take over one Female Block of 26 beds at Ham Green, and this Block did not become available for Phthisis until August, 1923.

At the end of December, 1922, admissions to Frenchay Park were stopped owing to a minor outbreak of Scarlet Fever at that Institution, and early in 1923 Chicken Pox also contributed to the " hold-up " of admissions, the embargo being removed at the end of February.

During the year the Committee completed arrangements with the United Services Fund for the admission to the Fund's Heatherwood Hospital, Ascot, of children of ex-Soldiers and Airmen, up to 12 years of age, suffering from Surgical Tuberculosis, the first case being admitted on 1st May. The maintenance charge is 25/- per week.

Sanatoria available for In-Patient Treatment, 1923.

	No. of Beds.	ADMITTED.			DISCHARGED.			DIED.			TRANSFERRED.		
		M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
EARLY CASES.													
Winsley Sanatorium, nr. Bath. (Beds retained by payment to Winsley Board of Management) ...	58	138	75	213	139	69	208	1	2	3	3	2	5
Ham Green Sanatorium, Pill, near Bristol (On adjacent site to Isolation Hospital)	52	66	75	141	108	103	211	30	22	52	—	1	1
ADVANCED CASES.													
Ham Green Tuberculosis Hospital (On adjacent site at Ham Green)	72	94	69	163									
Ham Green Red Cross Hospital (For Soldiers and Sailors) ...	12												
PRE-TUBERCULAR CHILDREN.													
*Frenchay Park Sanatorium, Frenchay, near Bristol ...	35	56	54	110	55	47	102	—	—	—	4	1	5
SURGICAL CASES.													
Cossham Hospital, Kingswood, Bristol (6 beds retained by payment of maintenance charges) ...	6	8	4	12	6	5	11	—	—	—	—	—	—
Lord Mayor Treloar Cripples' Hospital, Alton, Hants (patients sent in by arrangement by payment of maintenance charges) ...	—	4	1	5	2	3	5	—	—	—	—	1	1
Orthopaedic Hospital, Redland, Bristol (patients sent in by arrangement on payment of maintenance charges)	—	6	1	7	1	—	1	—	—	—	—	—	—
Heatherwood Hospital, Ascot, Berks (patients sent in by arrangement on payment of maintenance charges	—	1	6	7	—	1	1	—	—	—	—	—	—

* This is the number of cases at present nursed in Frenchay Sanatorium, but it is hoped to bring the accommodation up to 50, as circumstances permit.

During the year the following cases were also admitted to various outside Institutions :—

	M.	F.	T.
Preston Hall Sanatorium and Training Colony, Kent	2	–	2
St. Michael's Home, Axbridge, Somerset ...	–	1	1
King George's Sanatorium, Bramshott, Hants	1	–	1
Headington Orthopaedic Hospital, nr. Oxford	1	–	1
Beechwood Hospital, Newport	1	–	1
Total ...	5	1	6

The Council has approved of an arrangement for the provision of 60 beds for surgical tuberculosis in children, at Lord Mayor Treloar Cripples' Home at Alton and Hayling Island, and for 100 beds at Frenchay; both these schemes have been delayed by the Ministry on the plea of economy. Six beds have been provided at Cossham Hospital for special adult surgical cases needing operative interference, and children will be admitted for surgical treatment to the Orthopaedic Hospital.

There are now 194 adult beds for consumption, in addition to Frenchay for children, and the Committee feel assured that a very large amount of beneficial work will be secured as soon as full facilities are available for dealing with the early manifestations of Tuberculosis in childhood, upon which so much rests in the preventive treatment of this endemic disease.

MATERNITY AND CHILD WELFARE.

Report for Year 1923.

General Statistics.

Midwives in private practice	65
Midwives attached to Institutions, Homes, etc.	64
Total ...	129

Live births notified	7,420
Stillbirths ,, ...	261
Total ...	7,681

Notified by Doctors	1,230
,, ,, Midwives	5,503
,, ,, Relatives	948

Born living ... 3,830 males, 3590 females
,, dead ... 149 ,, 112 ,,

Home Visits by Health Visiting Staff :—

First visits	6,868
Re-visits	58,596
Stillbirths	208
Ante-Natal	222
Other purposes	11,135
Total visits ...	77,029

Health Visitors' case records	2,978
Infant Centres' case records	401
Total	3,379

Assistance Grants :—

Milk Grants	6,948
Medical fees under Midwives Act, 1918	173
Provision of Maternity beds	5
,, ,, Doctor at confinement	2
,, ,, Midwife	6

Attendance at **Ante-Natal Clinics** :(5) —

Average attendance, 17.9.

New patients	1,139
Old patients	4,869
Post-Natal	425
Total	6,433

Attendance at **Moorfields Infant Clinic** :—

Average attendance, 25.3.

New patients	786
Old patients	886
Total	1,672

Schools for Mothers (20).

No. of women on books	2,601
,, infants under 1 year	1,363
,, ,, over 1 year	737

Midwives.—Employment of, or subsidy to, practising midwives by public health authority.

There is now no midwife subsidised by the public health authority. Midwives fees have, however, been paid wholly, or in part, in six cases during the year.

OPHTHALMIA NEONATORUM.

Ophthalmia Neonatorum	Cases			Vision Unimpaired	Vision Impaired	Total Blindness	Still under Treatment	Deaths	Result not known
	Notified	Treated at Home	Treated at Hospital						
82	82	20	In-pt. 20 Out-pt. 42	76	3	Nil	1	1	1

Eye cases other than Ophthalmia Neonatorum	494
Vision unimpaired	489
Death before recovery	3
Result not known	2

Clinics and Treatment Centres.

MUNICIPAL ANTE-NATAL CLINICS.

Clinic.	*Address.*	*Open.*
Bedminster	62 West Street	Every Thursday, 10.30 a.m.
North Bristol	Brookland Inst., Lower Ashley Rd.	Every Tuesday & Wednesday, 10.30 a.m.
Redcliffe	90 Redcliffe Hill	Every Friday, 10.30 a.m.
St. Augustine's	89 St. George's Rd., Hotwells	Every Tuesday, 10.30 a.m.
University Settlement	63 Barton Hill Road	Every Friday, 10.30 a.m.

MUNICIPAL INFANT CLINIC.

Clinic.	*Address.*	*Open.*
Moorfields	38 Chapter Street, Dean Lane, Moorfields	Every Tuesday and alternate Wednesdays, 10.30 a.m.

Voluntary Schools for Mothers and Societies affiliated to the Bristol Infant Welfare Association and Council of School for Mothers.

SCHOOLS FOR MOTHERS AND INFANT CONSULTATION CENTRES.

School or Centre.	*Address.*	*Open.*	*Remarks.*
Barton Hill (University Settlement)	63 Barton Hill Road	Tues. and Wed. 2.15—4.15 p.m.	
Bedminster	62 West Street, Bedminster	Mon. & Thurs. 2—4.30 p.m. Wednesdays, Thrift Sewing Class 2.30—4.30 p.m. Citizen Club Wed. even. Nursery open, 3 p.m.	
Knowle and Brislington	United Methodist Church Hall, Oxford Street, Totterdown	Fridays, 2.30—4 p.m.	
Broad Plain	Girls' Club, 5 Broad Plain, St. Philip	Fridays, 2.30—4 p.m.	

School or Centre.	*Address.*	*Open.*	*Remarks.*
Durdham Down	Mission House, Granby Hill, Durdham Down	Thursdays, 2.45 p.m.	
Eastville	St. Thomas' Parish Hall, Eastville	Wednesdays and Thursdays, 2.30—4 p.m.	
Hotwells	12 Dowry Sq.	Wednesdays and Thursdays 2.15 p.m.	
Horfield	Horfield Baptist Schools, Brynland Ave., Bishopston	Tuesdays, 2.30—4.30 p.m.	
Kingsdown	St. Matthew's Hall, Cotham Rd. South	Wednesdays, 2.30—4.30 p.m.	
Kingswood	Wesleyan Old Schoolrooms, Black Horse Rd., Kingswood Hill	Wednesdays, 2.30 p.m.	Situated in county district near City boundary
North Bristol	Brookland Inst., Lower Ashley Road	Tuesdays and Fridays, 2.30—4.30 p.m.	
Moorfields (University Settlement)	38 Chapter St., Dean Lane, Moorfields	Fri. 2.15—4 p.m. Alternate Mondays, 2.45—4.15 p.m.	
Redcliffe	90 Redcliffe Hill	Tues. 2—4 p.m.	
Shirehampton (University Settlement)	Settlement Cottage, Kingsweston	Thursdays, 2.30—4.30 p.m.	
St. Augustine's	89-91 St. George's Rd.	Tuesdays, 2.30—4.15 p.m.	
St. Lawrence	St. Lawrence Church House, Leadhouse Rd., Lawrence Hill	Thursdays, 2.30—4 p.m.	
St. James' and District	10 Montague St., St. James'	Tuesdays, 2.30 p.m.	
St. Paul's	St. Paul's Mission House, Dean Lane	Tuesdays, 2.30—4 p.m.	
Temple	The Parish Hall, Church Lane, Temple	Thursdays, 2.30—4 p.m.	
Westbury	College House, Westbury-on-Trym	Wednesdays, 2.30—4 p.m.	

DAY NURSERIES.

School or Centre.	*Address.*	*Open.*	*Remarks.*
Bristol	27 North St., Stokes Croft	7.30 a.m. to 7 p.m. daily except Sats. & Suns.	
Hotwells	12 Dowry Square	8 a.m.—6 p.m.	

Hospitals provided or subsidised by the Local Authority.

The Maternity Hospital, Brunswick Square.

Opened February, 1921. In order to prevent closure, owing to financial embarrassment, the Town Council has purchased these premises and leased them to the Voluntary Committee which originally acquired the buildings.

Provides 21 beds for married women only, including two in isolation room.

Any Institutional provision for unmarried mothers, illegitimate infants and homeless children in the district.

Homes for Unmarried mothers and babies.

Grove House, 148 Redland Road ...	12 beds and cots.
Bristol Maternity Hospital, Southwell Street	31 ,, ,,
Salvation Army Home, 89 Ashley Road	18 ,, ,,
Guardians' Institutions.	

Homes for Homeless Babies.

Ashley House, Somerset Street, Kingsdown. 30 cots.
Guardians' Institutions.

JOHN C. HEAVEN, L.R.C.P., M.R.C.S., D.P.H.
M.O. i/c,
Maternity and Child Welfare Department.

D. S. DAVIES, M.D.,
Medical Officer of Health.

V. SUMMARY (for reference) OF NURSING ARRANGEMENTS, HOSPITALS AND OTHER INSTITUTIONS AVAILABLE FOR THE DISTRICT AND OTHER BENEVOLENT INSTITUTIONS AND SOCIETIES.

(Refer to Annual Report for 1921).

AMBULANCE FACILITIES.

(*a*) For Infectious cases.—3 Motor Ambulances maintained by Bristol Corporation.

(*b*) For non-infectious and accident cases.—4 Motor Ambulances (3 stretcher and 1 sitting) by Bristol City and Marine Ambulance Corps ; 6 motor Ambulances (stretcher) by St. John Ambulance.

Various large firms in the City have their own private Ambulances for emergency cases.

PATHOLOGICAL EXAMINATIONS.

Special Pathological examinations at the Pathological Laboratory, University of Bristol (paid by fee).

		1923.		
		Positive.	*Negative.*	*Total.*
Typhoid Fever (Blood)	Typhoid ...	6	24	41
	Para. B ...	10		
(Fæces and Urine)	Para. A ...	1	—	
Dysentery (Stools) ...	...	4	2	6
Malaria	...	—	2	2
Cerebro-spinal Fever ...	...	—	1	1
Plague (cat from vessel in Port)	...	—	1	1
Diphtheria (for Virulence)*	...	20	25	45
(swabs) ...	...	2	1	3

* Of these, 39 were of patients at Ham Green Hospital to govern discharges.

Milk.—25 examinations of milk samples were also carried out, and two samples were suspicious of Tuberculosis and on receipt of the Pathologist's reports the necessary action was taken at the farms.

It would conduce to progress if the fee system were abolished and the Pathological work, routine and special, arranged with the University as an integral and necessary part of the Public Health Service.

LABORATORY WORK.

Routine :—

Bacteriological examinations by the City Analyst :—

1923.	No. of specimens examined	11,683	Diphtheria.
		18	Widal.
		609	Sputum.

(888 specimens of Sputum were examined at the Bristol Municipal Tuberculous Dispensaries).

21 samples of milk were examined, of these 15 were examined for the Maternity and Child Welfare Department.

DIPHTHERIA ANTITOXIN.

Diphtheria Antitoxin supplied by Bristol Corporation gratuitously, 700,000 units.

PUBLIC HEALTH STAFF (City).

Medical Officer of Health (whole time)	1 (Port also).
Assistant Medical Officer of Health (whole time) ...	0

Special assistance paid by fee. Average 3 years, £12.

Home Nurses	3

CITY HOSPITALS.

Ham Green Isolation Sanatorium	Whole-time Resident M.O.	1
	Assistant do.	2
	Matron and Nursing Staff—	
	Hospital	56
	Sanatorium	31
Novers Hill (Smallpox or Fever)	Visiting Medical Officer (part time)	1
	Nursing Staff (including Home Sister and Nursing Superintendent)	12
Frenchay Park	Visiting Medical Officer (Tuberculosis Officer, part time)	1
	Matron and Nursing Staff	6

MUNICIPAL TUBERCULOSIS DISPENSARIES.

Tuberculosis Medical Officer	1
Assistant Do.	1
Tuberculosis Nurses	6

MATERNITY AND CHILD WELFARE DEPARTMENT.

Medical Officer-in-Charge (part time)		1
Health Visitors	Superintendent	1
	Assistant Superintendent.	1
	Health Visitors.	21

ANTE-NATAL CLINICS AND INFANT CLINIC.

Visiting Medical Officers (part time)	3

VENEREAL DISEASES.

Medical Officer	0

(Work contracted out with Royal Infirmary and General Hospital).

INSPECTING STAFF.

Chief Sanitary Inspector	1
Superintendent	1
Meat and Food Inspectors	3
Dairies and Cowsheds	2
Workshops	1
Common Lodging Houses & Tenement Houses	1
District	13

Housing Inspectors.

Chief Housing Inspector	1
Inspectors	2

V. D. CLINICS.

	BRISTOL GENERAL HOSPITAL			BRISTOL ROYAL INFIRMARY			TOTALS		
	M.	F.	Total	M.	F.	Total	M.	F.	Total
Number of persons under treatment or observation on 1st January, 1923	607	243	850	1,656	634	2,290	2,263	877	3,140
Number of new cases dealt with during 1923 ...	292	46	338	570	232	802	862	278	1,140
Total attendances during the year	2,987	887	3,874	13,035	4,018	17,053	16,022	4,905	20,927
Aggregate number of " In-Patient " days of treatment given	187	90	277	584	385	969	771	475	1,246
Number of doses of Arsenobenzol compounds given		788			2,341			3,129	

Ham Green Hospital

Admissions and Discharges during 1923.

	Remaining in Hospital end of 1922	Admissions as Notified	Recovered	Died	Mortality Case Rate per cent.	Remaining in Hospital end of 1923
Scarlet Fever	94	592	629	12	1.8	19
Diphtheria	74	671	478	42	8.0	114
Enteric Fever	0	9	5	1	16.6	3
Measles	0	16	14	1	6.6	1
Mixed infections and other diseases and observation cases	7	21	145	6	3.9	14
	175	1309	1271	62	4.6	151

Scarlet Fever

Still remains of a mild type in most cases, but the proportion of severe cases shows a slight increase and the case mortality rate, 1.8 per cent., is higher than in recent years. The return case rate was just 1 per cent.

Diphtheria.

The number of cases admitted shows a decline, but the type still remains severe with approximately the same mortality rate (8 per cent.) as the two previous years. The only hope of reducing this rate is a better education of the public to the grave risks in delaying seeking medical advice in throat affections in children, as so many of the fatal cases still reach hospital with the disease so far advanced as to be beyond hope. Antitoxin treatment must be used in these virulent cases within forty-eight hours of onset if the patient's life is to be saved.

Schick Test.

This test has been applied to the staff again during last year. As our results showed that a negative result did not indicate a complete immunity, during the latter part of the year all joining members of the staff have received three immunising doses of the toxin antitoxin mixture.

So far none of this latter group has contracted Diphtheria. Five nurses and one maid contracted diphtheria during the year.

The particulars of the staff who developed diphtheria are as follows :—

One maid gave a positive reaction but refused inoculation.
One nurse gave a negative reaction and was not immunised.
Two nurses gave a positive reaction and developed the disease while being immunised.
Two nurses gave a positive reaction and developed diphtheria some months after two doses of toxin antitoxin.

It appears that at least three doses are necessary to ensure a satisfactory immunity.

With a fuller knowledge of the limitations of the test and the practice of immunisation, I am hopeful of almost entirely abolishing the onset of diphtheria amongst our staff.

B. A. I. PETERS,, M.D., D.P.H.
Resident Medical Officer.

NOVERS HILL HOSPITAL.

Visiting Medical Officer's Report for Year 1923.

Scarlet Fever cases remaining from year 1922 ...	21
Cases admitted during year 1923	228
Discharged	203
Removed to Ham Green	12
Died	3
Remaining in hospital	31

Average duration in hospital, 33 days.

Ages :—Under 10 years.	10 to 20 years.	Over 20 years
143	76	9

Cases found not to be suffering from S.F.	8
Doubtful cases	8
S.F. contracted in hospital	2
Secondary attacks	2

Other Diseases—

Chicken-pox ...	4	Eczema	3
Chicken-pox (Port case)	1	Measles	1
Haemoptysis (T.B.) ...	1	Scabies	1

Complications—

Broncho-pneumonia ...	1	Nephritis	8
Endocarditis ...	6	Rheumatism ...	2
Otorrhœa	8	Impetigo	6

Diphtheria—

Hoffmann, Nose, 35 Throat, 31. Nose and Throat, 20. Percentage of cases in hospital with " Mixed Infection " 41.7 per cent.

Deaths—

R.A.P., age 7. Admitted 17/3/23; died 21/4/23—Haemophilia, Haematuria, Uraemia.

T.E.J., age 5. Admitted 21/3/23 ; died 3/5/23—No rash on admission, S.F. doubtful. Rash and well-marked symptoms of S.F. on 27/4/23—Scarlatina Anginosa.

H.H.O., age 14. Admitted 31/1/23; died 19/3/23. Desquamating on admission—Rheumatism, Carditis and Pleurisy.

The type of disease (S.F.) was generally very mild, septic cases followed by abscesses being comparatively few.

Again I have to thank Sister-Superintendent Wilcox and Sister Taylor for the valuable aid they have given me in my work ; at the same time I would congratulate the Staff generally on the cleanliness and orderly condition in which the hospital is kept. I have every reason to be proud of " my " hospital.

E. H. CHURTON PAULI,

Visiting Medical Officer.

HOUSING.

ANNUAL REPORT, 1923.

A fair amount of work of repairs has been carried out during the year; 145 houses have been satisfactorily repaired, including 48 after service of Formal Notices under Section 28 of the Housing Act of 1919; 15 Closing Orders and 18 Demolition Orders determined. The owners of nine houses made default in carrying out the Formal Notices served upon them; the Housing Committee have carried out the works specified and proceedings are now pending for the recovery of the expenditure incurred, viz., £497 5s.

An Area was represented as an " Unhealthy Area " by the Medical Officer of Health and approved by the Council in February, 1923. An enquiry will be held by the Minister of Health, in due course, to approve or otherwise of the suggested " Re-construction Scheme."

The position in regard to Unfit Houses is steadily becoming worse. Owners in many cases have failed to keep current repairs in hand, and the accumulation means, in many instances, that a sum of money is required to be spent which exceeds the original price paid for the house. The question of dealing with these uneconomic properties will have to be faced.

Section 10 of the Housing Act of 1923 gives power to Local Authorities to acquire compulsorily any house upon which a Formal Notice has been served. under Section 28 of the 1919 Housing Act, if the owner declares his intention to close the house because the work specified involves " re-construction," or the cost of executing the required works is not an economic proposition to him.

There are hundreds of houses in Bristol which are unfit in their present condition, but can be rendered fit for human habitation if they were provided with new roofs, floors and windows, though few owners will face such an expenditure.

If these houses are allowed to become derelict they will have to be replaced with new houses, costing between four and five hundred pounds to erect; whereas probably an outlay of £100 to £150 would make them fit, with an additional life of twenty or more years.

It is necessary to differentiate between houses which, owing to their environment, congestion and absence of all the amenities, no expenditure of money can possibly bring them up to the modern standard of fitness and the houses which can be made fit where there is already through ventilation and a reasonable amount of yard space at the rear of them.

It is surprising the great efforts tenants will make to ameliorate the bad housing conditions under which they are compelled to live; many tenants will redecorate their rooms and houses and even carry out minor repairs, but they cannot be expected to renew window sashes and frames, repair roofs and plaster work. They realise that there is no alternative accommodation for them as in pre-war days.

It is astonishing the number of owners who either have not charged their tenants with the permitted increase of the standard rent allowed by the Rent and Mortgage Interest Restrictions Acts, 1920 to 1923, or have only increased the rents by 25 to 30 per cent. They erroneously think if they do not increase the rents they are not responsible for carrying out repairs. On the other hand, tenants will put up with a defective house in these days of high cost of living if the rents are not raised, and consequently no complaints are made by them. It is a mistaken policy because while momentarily the owners are better off with the pre-war rentals the houses are rapidly becoming uneconomically reparable.

It is interesting and disquieting to know that to meet the normal increase of the population, and to overtake the deficiency accrued during the past twelve years, it will be necessary to erect 1,074 houses annually for the next five years.

I fail to see how it is possible to effectually deal with slum houses and slum areas until the deficiency of houses has been overtaken and there are sufficient houses to meet the normal growth of the population and to cover the replacement of houses which require to be demolished because they are beyond repair.

It is deplorable that young people have to set out on their matrimonial career in apartments or even in a single room. The idea of " home " is gone to the wall for many people.

People who have a house to themselves cannot realise the effect on the health and temper of those who are forced to live two, three or even more families in a house originally intended for the occupation of one family; the bickerings, quarrels and jealousies and, last, but not least, the divided responsibility of looking after the house.

Large employers of labour should realise that much of the unrest amongst their employees is due to the inadequate and unsatisfactory housing conditions.

It is certain that the speculative builder cannot provide houses to-day with the prohibitive prices of materials, and employers of labour in conjunction with Local Authorities and the State will have to evolve schemes which will facilitate the erection of houses and a sufficiency of them for the working classes.

At the end of the year under consideration the position in regard to houses upon which Closing and Demolition Orders are outstanding, is as follows -:—

	Occupied.	*Void.*
No. of houses upon which Closing and Demolition Orders have been made	358	143
No. of such houses which can be made fit ...	197	31
No. of such houses which cannot be made fit ...	161	112
No. of such houses where work of repairs is in hand, or where some work has been done ...	125	21

A. W. GRIFFITHS,
Chief Housing Inspector.

HOUSING ACTS 1890 to 1923.

SYNOPSIS.

Total No. of houses inspected, 1910 to 1923 ...		22,024
No. found defective ...	15,059	
No. made fit	7,014	

Of the number found defective—1,352 houses are within Scheduled Areas, and only work of immediate and temporary nature is being carried out.

Total No. of houses **Represented as Unfit,** 1910 to 1923		2,752
No. of such houses repaired, 1910 to 1923 ...	870	
No. of such houses demolished, 1910 to 1923 (including 183 voluntarily after Closing Order)...	443	
No. of such houses outstanding at end of 1923...	1,439	
		2,752

Total No. of Closing Orders made, 1910 to 1923 ...		1,136
Total No. of Closing Orders determined ...	148	
Total No. of houses demolished voluntarily ...	183	
Total No. of Demolition Orders made ...	533	
		864
Total No. of Closing Orders outstanding at end of 1923		272
Total No. of Demolition Orders made, 1910 to 1923		533
Total No. of Demolition Orders determined ...	44	
Total No. of Demolition Orders carried into effect	260	
		304
Total No. of Demolition Orders outstanding at end of 1923		229

Work done during the year 1923.

No. of houses visited by the Housing of the Working Classes Sub-Committee		589
Total No. of houses repaired—Represented Houses	107	
Informal Notices ...	38	
		145
No. of houses represented as unfit		287
No. of Formal Notices served under Sec. 28 of 1919 Act		14
No. of Formal Notices complied with— 3 of 1923 45 served previously		48
No. of Specifications and Informal Notices served ...		182
No. of houses closed under Order		116
No. of Closing Orders determined		15
No. of Notices to Quit served		80
No. of Notices to Quit obeyed		33
No. of Demolition Orders made		85
No. of Demolition Orders determined ...		18
No. of houses demolished under Order ...		52
No. of houses demolished voluntarily after Closing Orders		43
No. of houses inspected during 1923 ...	296	

A. W. GRIFFITHS,
Chief Housing Inspector.

SUMMARY OF PROCEEDINGS under Section 28 of the Housing, Town Planning, etc. Act, 1919, and Section 10 of the Housing, etc. Act, 1923.

Year	No. of houses.	No. of Houses Rendered Fit		No. of houses where Closing Orders have become operative.	No. of Notices outstanding.	Summary proceeding for recovery of expenses. No. of houses.
		By Owners.	By Corporation in default of Owners.			
1919	5	—	—	—	5	—
1920	21	1 of 1919 2 of 1920	—	—	23	—
1921	32	4 of 1919 10 of 1920 3 of 1921	—	—	38	—
1922	45	1 of 1920 3 of 1921 2 of 1922	—	—	77	—
1923	14	2 of 1920 25 of 1921 9 of 1922 3 of 1923	9 of 1922	—	28 (*a*)	
Total	117	65	9	—	28	—

(*a*) 4 notices of 1920 cancelled and Closing Orders made.
3 notices of 1922 cancelled and Closing Orders made.
8 notices of 1922 cancelled.

A. W. GRIFFITHS,
Chief Housing Inspector.

SYNOPSIS OF HOUSES satisfactorily repaired under NOTICES and ORDERS.

Nature of work executed.	Informal Notices and Specifications.				Formal Notices under Sec. 28.				Closing Orders.				Demolition Orders.			
	1920	1921	1922	1923	1920	1921	1922	1923	1920	1921	1922	1923	1920	1921	1922	1923
Structural Alterations, new additions and general repairs ...	1	15	24	25	—	—	1	19	—	1	2	3	—	6	9	3
Rebuilding and general repairs ...	19	31	52	21	1	—	4	24	—	14	11	7	—	5	6	15
General Repairs	70	96	102	17	2	18	—	5	—	7	2	5	—	—	—	—
Totals ...	90	142	178	63	3	18	5	48	—	22	15	15	—	11	15	18
	473				74				52				44			

ANNUAL TOTALS.	1920 ...	93	643
	1921 ...	193	
	1922 ...	213	
	1923 ...	144	

A. W. GRIFFITHS,
Chief Housing Inspector.

HOUSING ACTS, 1890 to 1923.

Synopsis of Action taken in regard to Houses represented as being Unfit.

YEAR	Re-ported as Unfit	Unfit Houses made Fit	FORMAL NOTICES		CLOSED		CLOSING ORDERS DETER-MINED	No. of families dehoused	DEMOLITION ORDERS		DEMOLISHED	
			Served	complied with	Under Order	Volun-tarily			made	Determined	Under Order	Volun-tarily
1910 to 1913	294	325	—	—	176	524	16	162	13	—	13	106 (27 after C.O.)
1914 to 1918	919	198	—	—	263	309	61	293	113	—	91	300 (35 after C.O.)
1919 ...	541	66	5	—	145	27	19	—	50	—	14	37 (10 after C.O.)
1920 ...	262	36	21	3	145	38	—	—	59	—	15	68 (20 after C.O.)
1921 ...	249	71	32	17	184	4	22	—	81	11	32	37 (30 after C O.)
1922 ...	200	67	45	6	107	6	15	28	132	15	43	39 (18 after C.O.)
1923 ...	287	107	14	48	116	81	15	33*	85	18	52	127 (43 after C.O)
	2752	870	117	74	1136	989	148	516	533	44	260	714 (183 after C.O.)

* 3 families occupied one house, therefore 31 houses were vacated.

Number of houses closed and demolished for extension of Business, etc. Premises and Street Improvements during 1923 ...	113
Total number of dwelling-houses (all classes) erected 1910 to 1923, including Housing Sites	3395
Total number of dwelling-houses (all classes) erected during 1923, including Housing Sites	431
Total number of dwelling-houses erected on Housing Sites during the year 1923	88
Total number of houses inhabited at end of 1923 is estimated to be	74,082
No. of void houses	221

A. W. GRIFFITHS
Chief Housing Inspector.

1923

HOUSING.

No. of new houses erected during the year :—

(*a*) Total	431
(*b*) As part of a Municipal Housing Scheme ...	88

UNFIT DWELLING-HOUSES.

Inspection.

(1) Total No. of dwelling-houses inspected for housing defects (under Housing Acts) ...	296
(2) No. of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	296
(3) No. of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	296
(4) No. of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	0

2.—Remedy of Defects without Service of Formal Notices.

No. of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers	38

3.—Action under Statutory Powers.

(*a*) *Proceedings under Section* 28 *of the Housing, Town Planning, &c. Act,* 1919.

(1) No. of dwelling-houses in respect of which notices were served requiring repairs... ...	14
(2) No. of dwelling-houses which were rendered fit :—	
(*a*) By Owners	39
(*b*) By Local Authority in default of owners	9
(3) No. of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	*None*

(*b*) *Proceedings under Public Health Acts.*

(1) No. of dwelling-houses in respect of which Statutory notices were served requiring defects to be remedied	278
(2) No. of dwelling-houses in which defects were remedied :—	
(*a*) By Owners	268
(*b*) By the Local Authority in default of owners	10

(*c*) *Proceedings under Sections* 17 *and* 18 *of the Housing, Town Planning, &c. Act,* 1909.

(1) No. of representations made with a view to the making of Closing Orders	287
(2) No. of dwelling-houses in respect of which Closing Orders were made	116

(3) No. of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit	33
(4) No. of dwelling-houses in respect of which Demolition Orders were made	85
(5) No. of dwelling-houses demolished in pursuance of Demolition Orders	52

A. W. GRIFFITHS,
Chief Housing Inspector.

D. S. DAVIES, M.D.,
Medical Officer of Health.

REPORT ON WORK OF SANITARY INSPECTORS FOR THE YEAR ENDING DECEMBER 31st, 1923.

Complaints received and attended to	2,599
No. of visits and re-visits on account of Nuisances, etc.	45,039
,, Informal Notices	3,036
,, Formal Notices and Orders served	278
,, Prosecutions for non-compliance	15
,, Articles disinfected	70,618
,, Articles destroyed	1,234
,, Houses disinfected	2,801
,, Visits to houses for infectious disease ...	3,726
,, Tests to drains	1,566

Summary of Work effected.

No. of drains relaid	217
,, drains partially re-laid	519
,, sink troughs fixed	373
,, sinks, drains, etc. trapped	813
,, W.C.'s fitted with new pans and traps ...	609
,, ,, repaired and cleansed	349
,, ,, fitted with flushing appliances ...	178
,, Additional W.C. accommodation	31
,, Houses repaired	884
,, Roofs repaired	1,182
,, Yards, etc., paved, floors repaired	1,420
,, Rooms cleansed, papered, etc.	2,964
,, Passages, etc., cleansed, papered, etc. ...	687
,, Cesspools abolished	13
,, Offensive deposits removed	172
,, Manure Pits or Refuse Bins provided ...	13
,, Pigs, etc. removed	27
,, Polluted Wells closed	10
,, Houses supplied with Co.'s water	32
,, Overcrowding nuisances abated	19
,, Other Nuisances abated	2,701
Total ...	13,213

D. S. DAVIES, M.D.,
Medical Officer of Health.

E. CARRATT,
Chief Sanitary Inspector.

BRISTOL PORT SANITARY DISTRICT.

Report of the Medical Officers of Health for the Year 1923.

Port Sanitary Authority—The City Council.

Port Sanitary District permanently constituted—1894.

Rateable value of City (District Rate), 1923—£1,926,064.

Gross expenditure in connection with Port Sanitary Authority for financial year ended March 31st, 1923, £1,948 8s. 1d., including expenditure of £222 9s. 8d. in connection with Aliens Order which is recoverable from the Government. The amount chargeable to the rates was £873 0s. 5d., which equals a rate in the £ of 0.11d.

The present condition of Port Sanitary work in Bristol is unsatisfactory, on account of, first, the loss of the Inspecting Launch, which has been sold and not replaced ; and, secondly, the collision which put the Hospital Ship out of use, depriving us at once of hospital beds for ship-brought disease, and of a useful base for tide-service.

The war, so far from giving any excuse for slack supervision over Port Inspection, called for increased vigilance. Disease was rife on many of the battle-fronts, and the advent of peace has opened up closed trade routes, and may thus promote some wide diffusion of disease.

There would appear to be a tendency at present to overlook the importance of keeping the Port defences in a state of full preparedness. This is a fatal error, and may be followed by most serious consequences.

TONNAGE FROM FOREIGN PORTS—arriving at Bristol Docks (net registered tons) :—

City Docks, including Avonmouth and Portishead :— 1923, 2,073,840 tons.

GRAIN IMPORTS :—

1923—Qrs. 4,277,663 total for City, Avonmouth and Portishead Docks.

INSPECTING STAFF.

Chief Port Inspector and Food Inspector :—

Inspector JOHN A. ROBINSON, San. Insp. Exam. Bd., London ; Meat Insp. Cert., R. San. I. ; Meat Insp. Cert., Liverpool Univ. ; San. Science, Liverpool Univ.

Port Sanitary Inspector at Avonmouth :—

Inspector E. H. SCORRER, Meat Insp. Cert. R. San. I. ; Cert. I. of N., R. San. I.

Assistant Port Sanitary Inspectors :—

W. GOUGH and J. ROWE.

CHOLERA REGULATIONS.

Table A—Vessels from Foreign.

Arrivals during 1923 requiring Medical Inspection as :—

	Bristol.	Gloucester.	Totals.
Infected	1	...	1
Suspected	...	...	...
Having come from Infected Ports	42	1	43
Total	43	1	44

	Inspected in Walton Bay		Inspected in Kingroad		Bristol Boats Inspected at Dockside		
	Bristol Boats	Glo'st'r Boats	Bristol Boats	Glo'st'r Boats	Bristol	Avonmouth	Portishead
Infected	...	...	...	...	...	...	...
Suspected	...	...	...	...	...	...	...
Having come from Infected Ports	1	...	...	1	12	30	2
Total	1	...	...	1	12	30	2
	1		1		42		

A.—GENERAL MEDICAL INSPECTION.

1.—**Medical Examination** of passengers or crews arriving in the Port of Bristol is at present limited to :—

(*a*) Arrivals from "infected" or "suspected" Ports under the Cholera, etc. Regulations.

(*b*) Cases notified on arrival as having infectious sickness or suspicious illness on board.

(*c*) Aliens, since April 1st, 1920.

2.—**Port Medical Staff.**

The City Medical Officer of Health holds since 1886, the separate appointment of Port Medical Officer of Health, for which he receives an honorarium of £50* per annum. In

---

* Stabilised in 1923 at £100.

1907, duties under the Foreign Meat and Unsound Food Regulations were imposed. There is no salaried Assistant Port Medical Officer of Health, but an Assistant Port Medical Officer of Health was appointed by the Bristol Council in 1884, and is paid by fee for work done. The average cost of this medical assistance for Bristol Port over the five years, 1913-7 inclusive, was £45 17s. 1d. The cost in 1923 was £51 14s. 6d.

The cost of Aliens Inspection is defrayed by the Central Government.

Two Emergency Port Medical Officers of Health (in private practice) are also appointed, but seldom called for; their fees are included in the above.

Certain work is also imposed upon the Bristol Port Sanitary Authority in respect of Gloucester-bound ships passing through Kingroad, under the Cholera, etc. Regulations; the cost of the work is defrayed by Gloucester.

Systematic Medical supervision under Food Regulations is not possible under existing conditions.

3.—Co-operation of Customs Officers.

All vessels arriving for the Port of Bristol pass through the anchorage of Kingroad. When the Customs Boarding Station was in Kingroad the Customs service was most useful, and cordially assisted in the working of the Cholera Regulations and other work. Since, however, the Customs Boarding Station has been removed from Kingroad, they are no longer in a position to intercept arrivals before they come into Avonmouth Dock, or take the river for Bristol, so that the Customs are a negligible quantity now in disease work so far as any information before docking is concerned.

4.—Port Inspection Launch.

In 1893, Bristol put a Port Inspection Launch on service in Kingroad, which obviated any difficulty, as sanitary boarding took place in Kingroad by arrangement with the Customs. The Port Inspection Launch was sold in 1912, and has not been replaced. A tug has to be hired when necessary to visit any vessel detained in Kingroad; otherwise arrivals cannot be inspected or passengers and crews examined until arrival at Dockside. This is the general rule. When a tug is not available, the vessel may escape inspection until docking.

5.—Naval and Military Aid.

During the naval and military occupation of Avonmouth Dock, safety was secured by working in co-operation. The D.A.D.M.S. Embarkation, Avonmouth, was particularly helpful. I have pointed out to my authority the added risks attending the loss of this protection, and following on the re-opening of communication with the Continent.

6.—Hospital Accommodation.

In 1893, Bristol provided a Hospital Ship for isolation and observation accommodation for ship-borne cases (20 beds). This was conveniently moored at the river mouth, but was run down in 1916, sold, and has not been replaced. The nearest available hospitals are the City Hospitals (6 miles). There are no " contact " shelters.

7.—Waiting Rooms.

Waiting rooms available for medical examination—none over which the Port Sanitary Authority has control.

8.—Cleansing and Disinfecting Station.

The nearest (6 miles) is at the Central Disinfecting Station, Bristol.

The procedure at present is :—

1.—Ship arrives at dockside or in river—Port Sanitary Inspector visits and enquires.
2.—If Infectious Disease found, or if from infected Port, Medical Officer advised and visits.
3.—Case and effects removed to City Hospitals.
4.—Disinfection of cabins, etc. carried out.
5.—Rat precautions, etc. carried out for plague.

In any Reconstruction Scheme the following points need consideration :—

1.—If every arrival is to be medically examined, one whole-time Assistant Medical Officer of Health at least is absolutely necessary, with necessary reliefs.

2.—If vessels from Foreign Ports are to be visited and examined in the anchorage of Kingroad or in Walton Bay, the replacement of the Sanitary Inspecting Launch is essential.

3.—If separate observation and isolation accommodation for ship-borne cases is to be provided as before, the Hospital Ship must be replaced.

Personally we are of opinion that a secluded part of the Dock to which no access from shore is permissible, would better serve in place of the Kingroad "Anchorage," under the Cholera Regulations, but whole-time medical service in any case is unavoidable for the medical inspection of every ship arriving.

A Bathing, Cleansing and Disinfestation Centre at Avonmouth is necessary to complete protection, especially in regard to Plague.

TABLE B.

Diseases occurring on Ships during voyage or on arrival.

1923.		Name of Ship.	Loading Port.	Disease.	No. of cases	GENERAL PARTICULARS.
Jan.	29	s.s. " Motagua "	Kingston and Santa Marta	? Diphtheria	1	Admitted Ham Green Hospital 29/1/23. Case doubtful.
Feb.	13	s.s. " Murex "	Rouen	?	1	Pumpman died in Barry Roads, 13/2/23.
Mar.	11	s.s. " Changuenola "	South America and Jamaica	Haematemesis	1	Removed to Bristol Royal Infirmary.
,,	26	s.s. " Westerdijk "	San Nicholas and Rosario	?	1	Medically treated at San Nicholas and Bahia.
,,	26	Do.	Do.	Swelling in groin	1	Medically treated at San Nicholas.
,,	29	s.s. " Absalon "	Rufisque, S.Africa	? Malaria	2	Convalescent on arrival.
April	9	s.s. " Ulrik Holm "	Cartagena, Spain	Venereal Disease	1	Treated at Bristol Royal Infirmary.
,,	15	s.s. " Freienfels "	Bombay	Smallpox	1	Removed to Hospital at Genoa, 31/3/23. All well on arrival. Forward Notices sent.
May	14	s.s. " Floris "	Bordeaux	Diarrhœa	1	Medically treated on arrival.
,,	28	s.s. " Coronado "	West Indies	Pulmonary Tuberculosis	1	Patient proceeded home.
,,	30	s.s. " San Dunstano "	Tampico. Mexico	Insanity	1	Patient removed to Mental Hospital.
June	3	s.s. " Patuca "	Jamaica	Pulmonary Tuberculosis	1	Patient proceeded home.
,,	10	s.s. " Camito "	Kingston and Bermuda	Chicken-pox	1	Convalescent on arrival. Patient removed to Novers Hill Hospital for disinfecting bath.
,,	13	s.s. " Direktor Stolz "	Valencia	Venereal Disease	1	Patient proceeded on ship to Cardiff. Forward Notice sent.
,,	22	s.s. " Eros "	Braila	?	1	Medically treated on arrival.
,,	24	s.s. " Frankenfels "	Basra	Tubercular Peritonitis	1	Removed to Workhouse Infirmary.
,,	24	Do.	Do.	Influenzal Pneumonia	1	Removed to Bristol Royal Infirmary, 3/7/23.
,,	25	s.s. " Clydesdale "	Odessa	Typhus Fever	1	Removed to Ham Green Hospital, 25/6/23. Forward Notices sent and ship disinfested and crew bathed, Died, 28/6/23.
,,	26	s.s. " Scottish Strath "	San Francisco	Venereal Disease	1	Left in hospital at Panama.
,,	27	s.s. " Medway "	Glasgow	Measles	1	Removed to Ham Green Hospital, 28/6/23.
July	4	s.s. " Arabistan "	Basra	Dysentery	2	Convalescent on arrival.
,,	4	Do.	Do.	Malaria	1	Do.
,,	5	s.s. " American Press "	New Orleans	Malaria	1	Treated on board.
,,	9	s.s. " Stalheim "	Christiania	Venereal Disease	1	Medically treated.

July	13	s.s. " Porthia "	Rosario	Typhoid Fever	1	Landed at St. Vincent.
,,	22	s.s. " Camito "	Kingston	Pulmonary Tuberculosis	1	Removed to Bristol General Hospital.
,,	22	Do.	Do.	Do.	1	Patient proceeded home.
Aug.	19	s.s. " Coronado "	West Indies	Epilepsy	1	Treated on board.
Sept.	3	s.s. " Lord Erskine "	Philippiville, Algeria	Influenza	1	Removed to Ham Green Hospital for observation, 4/9/23. Discharged 10/9/23.
,,	14	s.s. " Burma "	Rangoon	?	1	Died at sea.
,,	14	Do.	Do.	Non-infectious	1	Removed to Hospital at Aden.
,,	15	s.s. " City of Adelaide "	Calcutta	Dysentery	1	Died 28/7/23. Buried at sea.
,,	15	Do.	Do.	? Smallpox	1	Removed to Hospital at Suez, 4/8/23.
,,	15	Do.	Do.	Pulmonary Tuberculosis	1	Removed to Southmead Infirmary, 19/9/23.
,,	15	Do.	Do.	Bronchitis	1	Medically treated on board.
,,	16	s.s. " Bayano "	West Indies	Hernia	1	Do.
,,	23	s.s. " Motagua "	Honduras and Jamaica	Pulmonary Tuberculosis	1	Do.
,,	28	s.s. " Vega "	Tunis	Malaria	1	Patient proceeded home.
,,	30	s.s. " Siljan "	Basra	Boil in Arm-pit	1	Medically treated.
Oct.	7	s.s. " Lynghang "	Rotterdam	Influenza Colds	2	Medically treated.
,,	8	s.s. " Fuhrmann "	Hamburg	Diarrhœa	1	Do.
,,	14	s.s. " Camito "	Kingston	Bronchitis	1	Removed to Bristol Royal Infirmary.
,,	21	s.s. " Yokohama "	Antwerp	Malaria	1	Removed to Hospital at Antwerp.
,,	29	s.s. " Antigone "	Roumania	Enteric Fever	1	Removed to Southmead Infirmary, 30/10/23. Died 6/11/23.
Nov.	4	s.s. " Montagua "	West Indies	Pulmonary Tuberculosis	1	Proceeded home.
Dec.	6	s.s. " Konigsan "	Hamburg	Venereal Disease	1	Medical treatment advised.
,,	8	s.s. " Anacortes "	Philadelphia	Do.	1	Removed to Southmead Infirmary.
,,	9	s.s. " Yokohama "	Copenhagen	Quinsy	1	Treated at Bristol General Hosptal.
	19	s.s. " Stalheim "	Christiania	Relaxed throat	1	Medical treatment advised.
,,	22	s.s. " Enrichetta "	Novorissisk	Enteric Fever	1	Removed to Ham Green Hospital, 23/12/23.
,,	24	s.s. " Appalachec "	Tampico	Venereal Disease	1	Sent to Greenwich Hospital.
,,	26	s.s. " Roumelian "	Alexandria	Malaria	3	Medical treatment advised.
,,	27	s.s. " Pinhel "	Lisbon	Malaria	4	Treated on board, and medically on arrival.
,,	29	s.s. " Boston City "	New York	Broncho Pneumonia	1	Corpse brought home for burial.
,,	30	s.s. " Coronado "	Kingston	German Measles	1	Convalescent on arrival.

TYPHUS FEVER.

On 25th June the s.s. " Clydesdale " arrived at Portishead Dock from Nikolaieff, Odessa, and reported second Engineer suffering from (?) congestion of Lungs.

As this Port was not included in the Official List of Infected Ports a local Medical Practitioner was called in, and he reported case as suspicious Typhus. The ship was visited and the man was removed for observation to Ham Green on 25th June, where diagnosis was confirmed—clinically and pathologically.

The man died 28th June.

The Resident Medical Officer reported no signs of lice were observed on the patient.

The crew consisting of 30 men all told, including officers, were all bathed and their clothing and kits disinfested at the Bristol Central Disinfecting Station.

Forward notices were sent, and the Ministry of Health advised.

No further case occurred.

DANGEROUS DRUGS ACT, 1920.

Circulars Nos. 357 and 1095.

The Port Sanitary Sub-Committee agreed to allow the Assistant Port Medical Officer to carry out any work in connection with these Circulars.

Association of Port Sanitary Authorities.

Representatives of the Port Sanitary Sub-Committee and the Port Medical Officer of Health attended the Annual Meeting of this Association in London on 25th May, 1923.

Avonmouth and Portishead Docks.

The Port Sanitary Sub-Committee made a visit of inspection to these Docks on 3rd October, 1923.

FORM A.

Amount of Shipping entering the Port Sanitary District during the year 1923.

1923.	Number.	Tonnage.	Number Inspected.		Number reported to be Defective.	Number of Orders issued (informal).	Number of Formal Notices.
			By the Medical Officer of Health.	By the Sanitary Inspector.			
Foreign—							
Steamers	971	2,070,891	44	971	72	69	3
Sailing	7	2,949	—	7	—	—	—
Fishing	—	—	—	—	—	—	—
Total Foreign	978	2,073,840	44	978	72	69	3
Coastwise—							
Steamers	4 466	999,340	—	205	22	22	—
Sailing	1,742	158,092	—	211	3	3	—
Fishing	—	—	—	—	—	—	—
Total Coastwise	6,208	1,157,432	—	416	25	25	—
Total Foreign and Coastwise	7,186	3,231,272	44	1,394	97	94	3

* Not including 73 vessels individually inspected under the Aliens Order.
,, 59 ,, ,, ,, from Irish Free State.

RATS AND MICE DESTRUCTION ACT, 1919.

This Act is administered by a Rats Officer, acting under the instructions of the City Engineer.

At Avonmouth Docks a rat-catcher is employed by the Docks Committee in clearing the sheds and warehouses. He is given authority to work on board ship in the docks, for which he is compensated by the master or agents.

At Bristol Docks, the Rats Officer supervises the destruction of the rats in the sheds and in the granaries, and conducts a systematic search for the rodents.

The following tables give the results of their work.

FORM B.

1923

RATS DESTROYED IN 1923. (Avonmouth Docks).

Number of Rats.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in Year
Caught alive	343	213	58	269	455	271	369	311	378	237	378	264	3,546
Found dead	266	278	672	304	308	371	310	92	191	270	549	788	4,399
Total	609	491	730	573	763	642	679	403	569	507	927	1,052	7,945
From Sheds and Warehouses in Docks	584	441	703	530	515	582	670	400	508	475	715	682	6,805
From Ships in Dock ...	25	50	27	43	248	60	9	3	61	32	212	370	1,140
Total	609	491	730	573	763	642	679	403	569	507	927	1,052	7,945
Rats examined	15	11	13	8	13	19	16	7	10	21	16	16	165
,, infected with plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—
,, not infected	15	11	13	8	13	19	16	7	10	21	16	16	165

Of the 165 rats examined at the University of Bristol, there were 58 Black Rats, 93 Brown Rats, 4 Alexandrine Rats. 6 Orientalis Rats, and 4 Rats no classification.

January	3,000	poison baits	laid by	Rat Catcher.
March	21,000	do.	do.	do.
April	3,000	do.	do.	do.
May	23,000	do.	do.	do.
June	1,500	do.	do.	do.
July	1,400	do.	do.	do.
August	6,000	do.	do.	do.
December	23,000	do.	do.	do.
	81,900			

BRISTOL DOCKS.*

1923.		Traps Laid.	Rats Caught.	Poisoned Baits Laid.	Baits Taken.
January	...	384	103	900	620
February	...	480	115	550	400
March	...	372	92	550	400
April	...	384	88	500	400
May	...	400	89	500	380
June	...	240	53	—	—
July	...	364	75	500	400
August	...	432	83	500	400
September	...	288	60	500	400
October	...	384	78	600	400
November	...	240	50	1,200	850
December	...	384	66	500	400
Total	...	4,352	952	6,800	5,050

A cat which came aboard ship at an "Infected Port," and was very emaciated, was submitted for special examination to the University for Plague. Result—negative (Enteritis).

* Figures supplied by City Rats Officer.

PORTISHEAD DOCKS.

1923.				Rats caught and destroyed.
January	...	...	...	21
February	...	...	...	20
March	...	...	...	21
April	...	...	...	21
May	...	...	...	29
June	...	...	...	30
July	...	...	...	—
August	...	...	...	25
September	...	...	...	—
October	...	...	...	25
November	...	...	...	14
December	...	...	...	21
			Total	227

One Brown Rat examined at the University—negative as regards Plague (Sarcoptic mange).

D. S. DAVIES, M.D.,D.P.H.,
Port Medical Officer of Health.

JOHN C. HEAVEN, L.R.C.P.,M.R.C.S.,D.P.H.,
Assistant Port Medical Officer of Health.

PRECAUTIONS AGAINST PLAGUE.

FORM C.

Particulars relating to Vessels "infected" or "suspected" or from "infected" Ports.

1923 Name of Vessel	Date of Arrival	Whether "infected," "suspected" or from "infected" Port	Method of Rat destruction employed			No. of Rats killed	Whether Certificate of Deratisation was issued	Remarks
			Fumigation by Sulphur Dioxide	Fumigation by Hydrocyanic Acid	Trapping, Poisoning, etc.			
1	2	3	4	5	6	7	8	9
s.s. "Clan Menzies"	Jan. 14	Infected Port						
,, "Clintonia"	,, 15	,,			s.s. "Clintonia"	12	No	
,, "Sigyn"	,, 20	,,						
,, "Ada Gorthon"	Feb. 5	,,						
,, "Pencarrow"	Mar. 7	,,						
,, "Stettin"	,, 18	,,						
,, "Mayo Maru"	,, 18	,,						
,, "Salina"	,, 17	,,						
,, "Frienfels"	Apr. 15	,,						
,, "City of Rheims"	,, 17	,,						
,, "Rhineland"	,, 24	,,						
,, "Clintonia"	,, 25	,,			,,	9	No	
,, "Kurmark"	May 15	,,						
,, "Antigone"	,, 20	,,						
,, "Emlynmor"	,, 31	,,						
,, "Den of Airlie"	June 12	,,						
,, "Posiedon"	,, 14	,,						
,, "Arabistan"	July 4	,,						
,, "Kinderdijk"	,, 5	,,						
,, "Malakuta"	,, 9	,,						
,, "Nestlea"	,, 5	,,						
,, "Kelsomoor"	Aug. 2	,,						
,, "Ixia"	,, 5	,,						
,, "Glenardle"	,, 15	,,						
,, "Storvik"	,, 19	,,						
,, "Anglo Colombian"	,, 20	,,						
,, "Bardistan"	Sept. 5	,,						
,, "Avristan"	,, 5	,,						
,, "Frienfels"	,, 9	,,						
,, "Burma"	,, 14	,,						
,, "City of Adelaide"	,, 15	,,						
,, "Shahristan"	,, 25	,,			s.s. "Shahristan"	9	No	1410 Poison baits laid
,, "Siljan"	Oct. 1	,,						
,, "Etrib"	,, 5	,,						
,, "Warwickshire"	,, 12	,,						
,, "Lord Byron"	,, 13	,,						
,, "Ruis-Y-Taulet"	,, 19	,,						
,, "Henzada"	,, 29	,,						
,, "Esneh"	,, 29	,,						
,, "Hollinside"	Nov. 20	,,						
,, "Bhamo"	,, 22	,,						
,, "Assyrian"	Dec. 5	,,						
,, "Antippe N. Michaelos"	,, 17	,,						
,, "Roumelian"	,, 26	,,						
,, "Pinhel"	,, 27	,,						
,, "Norwich City"	,, 27	,,						

N.B.—The greater proportion of these Vessels have only part cargo to discharge in Bristol, and go elsewhere to complete.

VESSELS (other than those dealt with in Form C) SUBJECT TO MEASURES OF RAT DESTRUCTION.

Number of Vessels fumigated by Sulphur Dioxide.	No. of rats killed	No. of Vessels fumigated by Hydrocyanic Acid.	No. of rats killed	No. of Vessels where trapping poisoning, etc. were employed.	No. of rats killed	No. of Fumigation Certificates issued on Form " Port 10 "	No. of other Certificates issued	Remarks.
1.	2.	3.	4.	5.	6.	7.	8.	9.
ss. " Oxonian " ...	84	ss. " Paparoa "	22	*ss. "St.Andrew"	25	ss. " Oxonian "	ss. " Pangbourne "	*12,300 poison baits laid in Holds, Provision Stores and Accommodation of these ships.
,, " Welshman "	66			* ,, " Turcoman "	27	,, " Welshman "	,, " Pangbourne "	
,, " Exeter City "	—			* ,, " Borden "	43	,, " Exeter City "	,, " Pangbourne "	
,, " Bristol City "	—			* ,, " Coronado "	—	,, " Bristol City "		
,, " Cornishman "	62			* ,, " Irishman "	213	,, " Cornishman "		
,, " Bayano "	—			* ,, " Caledonian "	43	,, " Bayano "		
,, " Wells City "	6			* ,, " Turcoman "	42	,, " Wells City "		
,, " Boston City "	—			* ,, " Delaware "	9	,, " Boston City "		
,, " Coronado "	—			* ,, " Welshman "	11	,, " Coronado "		
,, " Camito "	—			* ,, " Cadillac "	7	,, " Camito "		
,, " New York City "	—			* ,, " Pangbourne"	26	,, " New York City"		
,, " Caledonian "	86			* do.	9	,, " Caledonian "		
,, " Colonian "	84			* do.	17	,, " Colonian "		
,, " Chicago City "	—					,, " Chicago City "		
,, " Tritonia "	6					,, " Tritonia "		
,, " Exeter City "	—					,, " Exeter City "		
,, " Bayano "	—					,, " Bayano "		
,, " Boston City "	—					,, " Boston City "		
,, " Coronado "	—					,, " Coronado "		
,, " Bristol City "	—					,, " Bristol City "		
,, " Wells City "	6					,, " Wells City "		
,, " Camito "	—					,, " Camito "		
,, " Turcoman "	172					,, " Turcoman "		
,, " Polyktor "	62					,, " Chicago City "		
,, " Chicago City "	—					,, " New York City"		
,, " New York City "	—					,, " Hororata "		
,, " Hororata "	—					,, " Bristol City"		
,, " Bristol City "	—					,, " Wells City "		
,, " Wells City "	—							
	634		22		472			

D. S. DAVIES, M.D., *Port Medical Officer of Health.*
JOHN C. HEAVEN, *Assistant Port Medical Officer of Health.*

MEDICAL INSPECTION OF ALIENS.

PORT SANITARY DISTRICT OF BRISTOL.

Annual Return by the Medical Inspector of Aliens for Year ended 31st December, 1923.

Total No. of Aliens arriving at the Port, including those in transit and transmigrants, but excluding Alien Seamen (1)		No. of temporary visitors, i.e., Aliens whose stay in this country will not exceed three months (2)			No. of Aliens who intend to settle permanently or remain in this Country for more than three months. (3)		
Total Number	No. subjected to medical inspection*	Total Number	No. subjected to medical examination.†	No. of Certificates issued.	Total Number	No. subjected to medical ‡examination.	No. of Certificates issued.
289	226	67	—	—	‡ 75	57	—

ALIENS IN TRANSIT. (4)			TRANSMIGRANTS. (5)	
Total Number.	No. subjected to medical examination †	No. of Certificates issued.	Total Number	No. subjected to Medical examination†
147	—	—	—	—

* The term "Inspection" relates to the preliminary inspection of aliens to pass before the Medical Inspector . —
† The term "Medical Examination" relates to detailed medical inspection ... ... —
‡ Included in this total are 10 Diplomats and 5 Residents returning who are exempt from medical examination —

Particulars relating to Detailed Medical Examination of Aliens.

6. Aliens who were subjected to detailed medical examination and were not certified by Medical Inspector 57
7. Number of each of the following certificates issued by the Medical Inspector of Aliens :—
    - (*a*) Certificate that an alien is a lunatic, idiot, or mentally deficient ... ... —
    - (*b*) Certificate that, for medical reasons, it is undesirable that an alien should be permitted to land ... ... —
    - (*c*) Certified that an alien is suffering from some disease, defect or deformity, which may interfere with his capacity to support himself or his dependents ... ... —
    - (*d*) Certificate that an alien is suffering from one of the acute infectious diseases ... ... —
    - (*e*) Certificate that for the purposes of an adequate medical examination, it is necessary for the alien to land in order that he may be examined ashore ... ... —

Transmigrants.

8. Number of certificates of the cleansing of verminous transmigrants given by the Medical Inspector of Aliens to the Immigration Officer ... ... —

9. Number of medical certificates in respect of transmigrants suffering from trachoma, fevers, etc., given to the Immigration Officer ... ... —

Particulars relating to Alien Traffic.

10. Total number of passenger vessels carrying aliens which arrived during the year 37

Number of passenger vessels dealt with by Inspector of Aliens 37*

11. Total number of cargo vessels carrying alien passengers which arrived during the year 36

Number of cargo vessels dealt with by Inspector of Aliens 6

12. Any other vessels in connection with which the Medical Inspector has had to take action in regard to aliens ... ... —

JOHN C. HEAVEN,
L.R.C.P., M.R.C.S., D.P.H.,
Medical Inspector of Aliens.

D. S. DAVIES, M.D.,
Supervising Medical Inspector of Aliens.

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* One passenger vessel supposed to be carrying Aliens and visited by Medical Inspector was found on arrival to have no Alien on board.

BRISTOL PORT SANITARY DISTRICT.

Report of the Chief Port Sanitary Inspector for the Year 1923.

The Number of ships inspected at Avonmouth Dock or River entrance during 1923 was ...	702
By tug in Walton Bay or Kingroad	2
Total ...	704

Number of ships bound to the Port of Gloucester, 1.

The number inspected in Dock after arrival, 1,453.

The nationality and the number of ships dealt with, and defects found, were as follows :—

Nationality.	No. of Ships.	No. having Defects.
British	1,040	73
American	79	2
Belgian	1	—
Danish	28	1
Dutch	46	2
French	33	—
Greek	12	6
German	43	1
Italian	8	3
Japanese	2	—
Norwegian	48	2
Rumanian	3	1
Finland	2	—
Spanish	29	3
Swedish	48	—
Portuguese	1	—
Dantzic	1	—
Latvian	1	—
Jugo Slav	1	1
Brazilian	4	—
Egyptian	1	1
Hungarian	1	1
Russian	1	—
Totals ...	1453	97

Percentage of the total number, 6.7 %

PORT SANITARY.

TABLE A.

Bristol.

SHIP INSPECTION AT BRISTOL, AVONMOUTH, PORTISHEAD AND KINGROAD DURING THE YEAR 1923

Showing Particulars of Inspection, the Action taken, and results.

FROM FOREIGN PORTS.

Description of Ships																										
1923	Steamship	Sailing	British	Foreign	Forecastles, etc. requiring Re-painting	Forecastles, etc. in Dirty condition	With Defective Ventilation or Lighting	Foul Bilges or Deposits	Water Closets or Paint Lockers connected with Living Spaces	Defective Closets	Foul Closets	Requiring Lining of Iron Plates over Sleeping Bunks	Bad Water Supply or unclean Tanks	Leakages into Living Spaces	Accumulation of Manure between Decks	Dilapidations in Crews' Spaces	Dirty Galleys	Defective Drainage	Total Sanitary Defects	Informal Notices Complied with	Informal Notices in Abeyance	Written Notices Complied with	Written Notices in Abeyance	Ships Visited or Spoken in Kingroad or River	Revisits to enforce Notices, Health of Crew, and Regulations carried out	No. of Persons Inhabiting Ships Inspected
British Steamers from Foreign Ports	611	—	611	—	9	9	1	17	1	3	14	—	5	4	2	2	—	1	68	44	2	2	—	418	642	24,895
British Sailers from Foreign Ports	—	17	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	72
Foreign Steamers from Foreign Ports	402	—	—	402	—	14	1	1	—	3	17	1	2	2	—	1	1	—	43	23	—	1	—	242	211	10,270
Foreign Sailers from Foreign Ports	—	7	—	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	74
Totals ...	1013	24	628	409	9	23	2	18	1	6	31	1	7	6	2	3	1	1	111	67	2	3	—	660	853	35,311

COASTWISE

1923	Steamship	Sailing	British	Foreign	Forecastles, etc. requiring Re-painting	Forecastles, etc. in Dirty condition	With Defective Ventilation or Lighting	Foul Bilges or Deposits	Water Closets or Paint Lockers connected with Living Spaces	Defective Closets	Foul Closets	Requiring Lining of Iron Plates over Sleeping Bunks	Bad Water Supply or unclean Tanks	Leakages into Living Spaces	Accumulation of Manure between Decks	Dilapidations in Crews' Spaces	Dirty Galleys	Defective Drainage	Total Sanitary Defects	Informal Notices Complied with	Informal Notices in Abeyance	Written Notices Complied with	Written Notices in Abeyance	Ships Visited or Spoken in Kingroad or River	Revisits to enforce Notices, Health of Crew, and Regulations carried out	No. of Persons Inhabiting Ships Inspected
British Steamers from Coastwise	202	—	202	—	8	20	2	—	—	1	9	—	—	—	—	—	—	—	40	21	1	—	—	42	55	5,823
British Sailers from Coastwise	—	210	210	—	1	4	—	—	—	1	—	—	—	—	—	—	—	—	6	3	—	—	—	—	5	602
Foreign Steamers from Coastwise	3	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	63
Foreign Sailers from Coastwise	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15
Total Coastwise	205	211	412	4	9	24	2	—	—	2	9	—	—	—	—	—	—	—	46	24	1	—	—	42	60	6,503
Total Foreign	1013	24	628	409	9	23	2	18	1	6	31	1	7	6	2	3	1	1	111	67	2	3	—	660	853	35,311
Grand Total ...	1218	235	1040	413	18	47	4	18	1	8	40	1	7	6	2	3	1	1	157	91	3	3	—	702	913	41,814

1923.
TABLE B.

Class of Vessels.	Number Inspected.	Number having Defects.	No. of Notices Issued.	Per-centage Defective.
From Foreign	1,037	72	72	7.0
From Coastwise ...	416	25	25	6.0
	1,453	97	97	6.7
British Steamers ...	813	70	70	8.6
,, Sailers ...	227	3	3	1.3
	1,040	73	73	7.0
Foreign Steamers ...	405	24	24	5.9
,, Sailers ...	8	—	—	—
	413	24	24	5.8

TABLE C.
List of Chief Foreign Ports from which Ships have arrived and have been inspected.

1923

Name of Port or District	No of Vessels
French	103
Dutch and Belgian ...	107
Norwegian, Swedish and Danish... ...	55
Russian and Finnish ...	29
Spanish and Portuguese	101
German	67
Italian	10
Greek	3
Alexandria and Malta ...	16
Persian Gulf	22
North African... ...	6
South ,, ...	6
West ,, ...	5
Canary Isles	10
East Indies, West Indies, Java and Singapore ...	11
Bombay, Calcutta and Rangoon	20
Australia and New Zealand	40
San Francisco and Portland (Oregon) ...	16
Carried forward ...	627
Brought forward ...	627
Newport News and Norfolk, Va. ...	11
New Orleans and Gulf of Mexico	40
Jamaica, Port Limon and West Indies ...	52
Philadelphia, Savannah, Boston and Baltimore	36
Cuba	2
New York and Portland (Me.)	74
Canadian Ports ...	56
River Plate, Bahia Blanco and Rio de Janeiro	48
Manchuria	2
Rumanian	19
Turkey in Asia ...	3
Trinidad	2
Tela, Honduras ...	2
Peru and Chili ...	4
Irish Free State ...	59
Total	1,037

1923	
No. of these defects which consisted of non-attention to general cleaning and washing operations ...	128
Total No. of Ships inspected after arrival in the various Docks	1,453
Total No. of various defects found in ships inspected ...	157
No. of ships in which these defects occurred ...	97
No. of ships in which fumigation was carried out at request of owners, certificates given by Port M.O.H.	29
Total No. of dirty or infected beds destroyed ...	2,062
Special Rat Precautions on ships from Plague-infected Ports	46
No. of special visits made to ships from "suspected" Ports	293

The Port Sanitary Inspector and Assistant Inspectors have discharged their duties with zeal and thoroughness.

I beg to acknowledge the assistance and information received from the Port Sanitary Officers of Cardiff, Newport, Barry and Swansea, in following up ships on which requirements had been made.

J. A. ROBINSON,
Chief Port Sanitary Inspector.

D. S. DAVIES, M.D.,
Port Medical Officer of Health.

ANNUAL REPORT OF CANAL BOAT INSPECTION FOR THE YEAR 1923.

I beg to submit a Report in accordance with the requirements of Section 3 of the Canal Boats Act, as to the work done in carrying out the Regulations during the year 1923, with a summary of the contraventions and defects found in the canal boats examined.

1. The duties have been discharged by the Chief Port Sanitary Inspector and an Assistant Inspector, in conjunction with ship inspection work.
2. The number of inspections made was 32, confined to four boats which are used regularly. No women or children are carried on board boats in this district.
3. *Particulars of Inspection*—
    - (*a*) **Registration.**—All boats have been registered at some time.
    - (*b*) **Notification of Change of Masters.**—This Authority is not a Registration Authority, consequently no notifications were received.
    - (*c*) **Certificates.**—Certificates were produced when required.
    - (*d*) **Marking.**—All boats inspected were properly marked.
    - (*e*) **Overcrowding.**—None was discovered or reported.
    - (*f*) **Separation of Sexes.**—No infringement was found.
    - (*g*) **Cleanliness.**—Cabins were kept fairly clean.
    - (*h*) **Ventilation.**—The regulation openings were available in all cases.
    - (*i*) **Painting of Cabin Interiors.**—No infringement was found.
    - (*j*) **Provision of Water Casks.**—No contravention of the Regulations was found. Two and four gallon stoneware jars are preferred in this district.
    - (*k*) **Removal of Bilge Water.**—No excessive accumulations were noted.
    - (*l*) **Notification of Infectious Disease.**—No cases were found or reported.
    - (*m*) **Refusal to Admit.**—None.
    - (*n*) **Dilapidation, etc.**—No infringement was found.
4. No legal proceedings have been required.
5. Two notices were served to paint cabins—these were complied with.
6. Any cases arising of an infectious nature would be dealt with and isolated by the Port Sanitary Committee.
7. No detention of boats was required.
8. No register kept.
9. One steam-propelled boat only working in this district.

J. A. ROBINSON,
Chief Port Sanitary Inspector
and Inspector of Canal Boats.

D. S. DAVIES, M.D.,
Port Medical Officer of Health.

PORT OF BRISTOL.

PUBLIC HEALTH (REGULATIONS AS TO FOOD) ACT, 1907.

UNSOUND FOOD AND FOREIGN MEAT REGULATIONS, 1908.

FOREIGN MEAT REGULATIONS (AMENDMENT), 1909.

TABLE I.

Amount of Food examined during 1923.

1. Fresh or Frozen Beef, etc.

Frozen beef	9,284	quarters.
,, mutton	76,280	carcases.
,, legs, shoulders and loins ...	356	bags.
,, lamb	118,206	carcases.
,, pork	2,157	,,
,, pork sides ...	484	bales.

2. Cured or Salted Beef and Pork (including Bacon and Hams).

Bacon and Hams ...	29,769	cases.
Bacon	596	bales.
Mess Beef	25	tierces.
Pork Tongues	7	barrels.
Hog Casings	54	packages.
,, ...	10	kegs.
,, ...	132	cases.

3. Canned Meats, Fish, Fruits, Milk, etc.

Canned beef	4,800	cases.
,, ox tongues ...	270	,,
,, calves tongues ...	151	,,
,, sheep	6,700	,,
,, pork	6,111	,,
,, stewed kidneys ...	24	,,
,, tripe	250	,,
,, lobster	75	,,
,, salmon	7,785	,,
,, apples	3,085	,,
,, apricots ...	25,374	,,
,, apricot pulp ...	1,983	,,
,, asparagus ...	555	,,
,, fruit salad ...	5,983	,,
,, loganberries ...	425	,,
,, cherries ...	100	,,
,, peaches ...	30,786	,,
,, pears	37,201	,,
,, pines	2,905	,,
,, beet	50	,,
,, olives	250	,,

Canned	pilchards	100	cases.
,,	pork and beans	250	,,
,,	baked beans	800	,,
,,	peas	100	,,
,,	plums	1,145	,,
,,	raspberries	2,793	,,
,,	tomatoes	4,148	,,
,,	blackberries	100	,,
,,	condensed milk	30,127	,,
,,	,, ,,	155	barrels.
,,	evaporated milk	20,350	cases.

4. Fresh and Dried Fruits and Vegetables, etc.

Bananas	4,021,783	bunches.
Oranges	362,343	cases.
Mandarins	6,564	,,
Apples	8,396	barrels.
Apples	25,251	cases.
Onions	55,873	,,
Onions	23,492	bags.
Grapes	37,272	barrels.
Lemons	33,378	cases.
Melons	6,435	,,
Pomegranates	6,754	,,
Grape Fruit	334	,,
Dates	2,405	baskets.
Tomatoes	27,609	cases.
Plums	4,449	,,
Figs	8,398	packages.
Currants	2,700	cases.
Sultanas	2,241	,,
Raisins	3,142	,,
Potatoes	15,069	bags.
Parsnips	95	,,
Cabbages	654	,,
Cauliflowers in brine	560	barrels.
Onions in brine	85	,,
Gherkins in brine	175	,,
Lemon Peel	3,614	pipes.
Orange peel	80	,,
Strawberries in pulp	147	barrels.
Raspberries ,,	114	,,
Gooseberries ,,	126	,,

5. Other Foodstuffs.

Wheat	11,364	bushels.
Cheese	2,632	crates.
Eggs	1,350	cases.
Rolled Oats	153	bags.
Flour	246	,,

TABLE II.

Amount of Food found Unsound which was destroyed or otherwise dealt with so as not to be used for human food.

	tons.	cwts.	qrs.	lbs.
1. Fresh or Frozen Beef, etc.				
Frozen beef 32 pieces ...		15	0	24
,, mutton 38 carcases ...		10	1	2
,, ,, trimmings from 781 carcases ...		5	2	6
,, pork loins 1 case ...			2	1
,, ox tongues 1 case ...			2	20
2. Cured or Salted Beef & Pork	—	—	—	—
3. Canned Meat, Fish, Fruits, Milk, etc.				
Canned Beef - 11 tins ...			2	10
,, tongue 6 ,, ...				9
,, apricots 184 ,, ...		3	2	24
,, pears - 95 ,, ...		1	3	7
,, peaches 63 ,, ...			3	26
,, pines - 252 ,, ...		4	1	1
,, raspberries 5 ,, ...				12
,, apples - 7 ,, ...			1	14
,, salmon 34 ,, ...			1	6
,, milk - 240 ,, ...		2	0	16
4. Fish and Dried Fruit and Vegetables, etc.				
Oranges - 232 cases ...	14	10	0	0
Potatoes - 162 ,, ...		8	2	0
Currants		5	3	14
Sultanas		8	2	11
Raisins			3	4
Carrots - 14 baskets ...		9	3	0
Cauliflowers in brine, 2 barrels		6	0	0
5. Other Foods.				
Wheat		18	0	0
Flour - 42 bags ...	2	12	2	0
Sugar - 38 ,, ...	3	16	0	0
Rolled Oats - 14 ,, ...		17	2	0

J. A. ROBINSON,
Port Inspector of Foods.

D. S. DAVIES, M.D.,
Port Medical Officer of Health.

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